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ABSTRACT

The guide presents information on programming physical and recreational activities for severely and profoundly mentally retarded individuals of all ages who are in public and private treatment and direct care facilities, continuum care settings, and community programs. An introductory article stresses the need for physical activity by the severely handicapped, lists program goals, and offers general and specific suggestions for physical activities. Part 1 gives examples of behaviors to be developed with suggested activities for areas such as optimum arousal levels, discrimination of sensory stimuli, efficient motor perceptual skills, increased independence, and mature social interaction. Part 2, an annotated list of references, consists of the following components: general information and educational/training programs (33 items), educational/training programs which describe physical or recreational activities (21 items), physical and recreational activity programs (84 items), equipment (14 items), and evaluation (19 items). Listed in Part 3 are 11 resource information contacts. Part 4 lists 12 audiovisual aids with descriptive information and sources. Described in the last section are 10 examples of on-going program approaches. (DB)

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PHYSICAL AND RECREATIONAL PROGRAMING FOR SEVERELY AND PROFOUNDLY MENTALLY RETARDED INDIVIDUALS

June 1974

INFORMATION AND RESEARCH UTILIZATION CENTER
IN PHYSICAL EDUCATION AND RECREATION FOR THE
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Sponsored by American Alliance for Health, Physical Education and Recreation
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INTRODUCTION

This guide was developed in response to requests from many personnel for assistance in providing physical and recreational activities for severely and profoundly mentally retarded individuals of all ages who are in public and private treatment and direct care facilities, continuum care settings and community programs. Information which was gathered from diverse sources such as related literature, research/demonstration projects, books, manuals, and program guides was analyzed and selected data included.

The publication is designed to supplement and partially expand the article, *Physical Activity: A Necessity for Severely and Profoundly Mentally Retarded Individuals.*[1] The article serves as an introduction to the subject and deals with an overall view of the programing situation, definition of terms, availability and types of printed materials, differences seen among individuals who function at these intellectual levels, behavioral goals, and teaching/leading suggestions for physical activities. This guide concentrates on providing

1) examples of additional behaviors to be developed and physical and recreational activities to develop these behaviors,

2) an annotated list of references,

3) resource contacts for available materials and/or information,

4) audiovisual aids, and

5) examples of on-going program approaches.

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[1] Journal of Health, Physical Education, Recreation 45:3: 73-74, 76; March 1974.

Physical Activity: A Necessity for Severely and Profoundly Mentally Retarded Individuals

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The person who is labeled severely or profoundly mentally retarded,[1] like any other human being, needs physical activity. Though some programs and facilities provide well-planned and beneficial programs of physical activity for such people, there are still many situations in which little or no programing is taking place.

Among the reasons most often given for no proper physical activity program are lack of staff, money, time, facilities, and knowledge. An example of the rehabilitation-education approach in which in-service training was given to aides and nursing staff with little expenditure of time, facilities, manpower, and funds is described later in this article. As a result of that approach, physical activity was provided and the predominantly custodial conditions were alleviated. Many other state hospitals and schools have accomplished this goal.

In addition, many people feel that institutionalized profoundly mentally retarded persons are nearly vegetables—that they should either be kept alive, clean, and fed or they should be allowed to die. Eventually, the "living vegetable" theory produces subsistence living under warehouse conditions. Advocates for mentally retarded individuals and

groups who identify and forcibly obtain the rights of the person labeled mentally retarded are currently attacking this custodial maintenance premise on many fronts. Since lack of staff, money, time, and facilities are individual problems of each group, agency, or organization and since the Information and Research Utilization Center in Physical Education and Recreation for the Handicapped (IRUC) is responsible for gathering, analyzing, and distributing related information, this article provides some information that should help those who feel hindered by a lack of knowledge.

Scarcity of Available Printed Materials

There is little high quality practical information on this subject which is readily available to teachers/leaders on the firing line. Often, excellent information is stored in the heads of grassroots level practitioners who have never had opportunities or taken time to put their knowledge and experiences down on paper. Conversely, abundant written program descriptions and in-service training guides are available on a limited distribution basis from different programs; these usually are not printed in sufficient quantities for extensive outside dissemination. In addition, scanty practical information is included in many books, even those with titles relating to this subject, since many of the publications are philosophical and theoretical in nature or offer few practical methods for modifying regular activities. Accordingly, the diverse information that was available from such sources as related literature, research/demonstration projects, books, manuals, limited distribution guides, program descriptions, and responses to IRUC from people in the field was analyzed and selected data were included in an annotated list of references, resources, and information for programing physical education and recreation for severely and profoundly mentally retarded participants. Write IRUC c/o AAHPER, 1201 16th St., N.W., Washington, D.C. 20036 for information on availability of this material.

Watered Down Versions of Other Programs

Some materials which are available are simply watered down versions of programs for trainable mentally retarded persons. Such programs are not completely appropriate or are duplications of regular physical education curriculums and recreation programs with negligible modifications which are not completely adequate for needs of these participants. Although there are some activities for higher level mentally retarded individuals that are also indicated for severely and profoundly mentally retarded persons, there are distinct differences that should be considered.

Individual Differences

There are extreme individual differences among these participants since, as the level of retardation is lowered, secondary physical handicaps become more severe with accompanying social-emotional problems. Some people are aggressive, some withdrawn, and others hyperactive; many are multiply handicapped. In addition to ambulatory clients, some are wheelchair-bound,

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[1] This article deals with retardation *below* the trainable (moderately) mentally retarded level. Many personnel use the terms "trainable" and "severely mentally retarded" synonymously. The following definitions are from *Manual on Terminology and Classification in Mental Retardation*, American Association on Mental Deficiency/Special Publication Series No. 2. Herbert J. Grossman, M.D. (editor). Washington, D.C.: American Association on Mental Deficiency, Revised 1973. "Glossary Section," p. 149.

Severe mental retardation: when intelligence testing scores range between 4 and 5 standard deviations below the norm [20 to 35 on the Stanford-Binet and 25 to 39 on the Wechsler Scales (extrapolated)]; such persons require continuing and close supervision but may perform self help and simple work tasks under supervision, sometimes called dependent retarded.

Profound mental retardation: when intelligence testing scores are more than 5 standard deviations below the norm [19 and below on the Stanford-Binet and 24 and below on the Wechsler Scales (extrapolated)]; such persons require continuing and close supervision but some persons may be able to perform simple self help tasks; profoundly retarded persons often have other handicaps and require total life support systems for maintenance.

while others are so-called crib cases. Many patients depend completely upon others for care, although some are semi-independent. If left to themselves, most would play little or not at all. Program goals should be based upon individual needs.

Program Goals

Following are some behavioral goals to consider for each participant. These behaviors are not proposed as comprehensive goals for all program participants but representative of some goals that might be selected for a particular individual after careful consideration by the total rehabilitation-education team.

1. *Optimum arousal levels* such as (a) adequate alertness to surrounding environment, (b) high enough level of excitation for participation but not too high a level of arousal or emotional state which might interfere with participation, (c) sufficient arousal to respond to sensory stimulation, and (d) appropriate level of arousal for motivation to participate.

2. *Enhanced response to sensory stimuli* such as (a) reacting to heat and cold, (b) receiving information by touching different textures and shapes, (c) receiving input from tactual stimulation by toweling, brushing, stroking, and tapping, (d) responding to light, colors, and shapes in environment, (e) reacting to auditory stimuli such as participant's name being said aloud, and (f) recognizing kinesthetic feelings about body when being held, restrained, placed in certain positions, or moved through certain movement patterns.

3. *Efficient motor-perceptual skills to learn about environment* such as (a) effective head and trunk control, sitting, crawling, upright postural maintenance and locomotion, and (b) manipulation of objects by grasping, holding, and throwing.

4. *Increased independence* such as (a) improved self-direction and more independent initiation of tasks, (b) making decisions, and (c) continuing and completing tasks or play activities more independently.

5. *More efficient self-help and activities of daily living skills* such as (a) dressing and undressing, (b) brushing hair, (c) eating, (d) tying shoelaces, and (e) picking up items from the floor.

6. *Desirable responses to life experiences* such as (a) understanding cause and effect relationships of own actions, (b) accepting defeat in games, and (c) accepting other persons' reactions toward participant.

7. *More mature social interaction* such as (a) progressing *from* independent play, parallel play, and dual activities, *to* group play, (b) getting along with others, (c) taking turns and sharing with others, and (d) accepting responsibilities in play activity.

8. *More effective communication abilities* such as (a) verbally requesting toys, (b) listening and responding appropriately in the play situation, and (c) indicating by gestures and physical actions that help is needed in an activity.

9. *Improved physical growth and development* such as (a) efficiently performing basic movement patterns, (b) improved gross motor and fine motor skills, and (c) increased physical fitness.

10. *Creative fulfillment* such as (a) augmented individual expression and (b) greater feelings of success and accomplishment.

11. *Enhanced amusement* such as (a) joyful participation in wholesome activities and (b) enjoyment of and appreciation for leisure time activities.

Physical activities are provided after determining functional levels of each individual and deciding which behaviors or behavior changes are to be emphasized for the total social-emotional, mental, and physical development of each person.

Physical Activities

Teachers/leaders may use the following ideas for approaches or modifications when providing physical activity. It is hoped that these suggestions will stimulate creative ideas or methods which might be selected after careful consideration of each participant's individual needs. Many of the general and specific suggestions are adapted from D. Geddes, *Physical Activities for Individuals with Handicapping Conditions*, C. V. Mosby Co., St. Louis, Missouri (in press). Additional program material is provided in the IRUC information sheet mentioned earlier.

GENERAL SUGGESTIONS

1. Have a full understanding of each participant's medical background and recognize any limitations for physical activities.

2. Make no assumptions about a participant's performance or understanding levels. Determine individual needs based upon a complete appraisal of social-emotional, mental, and physical functional levels.

3. Work with physicians; physical, occupational, corrective, recreational, and speech therapists; physical educators; and other members of the rehabilitation-education team to establish an appropriate program.

4. Stress specific movement patterns, repetition of particular exercises, and range of motion activities if indicated by therapists. Progress exercises from passive, active-assistive, active, to resistive. Understand and use reflex behavior.

5. Provide activities that alert the participant to his environment.

6. Stimulate and motivate each person according to individual needs and interests. Most inert participants will respond to at least one thing which will arouse them, catch their interest, or prod them into action. If, on the other hand, a participant is hyperactive, use calming activities such as swimming in warm water, *channeling* hyperactivity into specific movements, or performing relaxation techniques.

7. Help the participant understand cause and effect relationships, especially the effects of his own actions upon various events and objects.

8. Provide activities that are flexible but within a definite framework of *organization and discipline*.

9. Give rewards freely and promptly for appropriate responses or performances. Use behavior modification techniques if indicated.

10. Allow adequate rest periods and change of activities since interest spans and fatigue levels may be very low.

11. Start activities at levels at which participants can succeed.

12. Present enough stress to stimulate participation and promote growth and development. Provide realistic challenges.

13. Use brief directions which are well explained kinesthetically, visually, tactually, and orally.

14. Repeat directions or say the same thing in different ways until each person knows exactly what is expected of him.

15. Move bed-confined persons to different surroundings, either in the bed or on a mat. Work with physical, corrective, and occupational therapists in establishing sitting and lying positions in which the patient should be propped.

16. Obtain any possible purposeful movement from the inactive individual and make him aware that he is moving.

SPECIFIC SUGGESTIONS

Several representative examples of activity modifications are given below for various types of physical activity.

Rhythms, basic movement, perceptual-motor activities

Stimulate sensory input by toweling, brushing, stroking, contact with different textures, icing, holding, and restraining.

Have those confined to beds or wheelchairs move while in a sitting or lying position.

Place a drum or tambourine in front of the wheelchair or string bells across

the bed and let patients unable to use their arms play them with a foot or knee.

Activities with small and large apparatus, manipulation of objects

Use portable air mattresses instead of trampolines since they take less effort for bouncing and have a bumpy surface on which to pull.

Use equipment such as soft yarn balls, fleece balls, or appropriate toys for catching and throwing.

Use inflatable toys which provide a comforting, soft, safe, but challenging environment for movement activity. Additional information about inflatable toys is available from HMC, Inc., 2109 Broadway, Suite 1120, New York, New York 10023.

Individual and dual activities, body mechanics, developmental activities

Make a tether ball set-up with a lighter ball between two beds or two wheelchairs.

Tie two beds together and have a rope tug-of-war between the two occupants.

Self-testing, stunts, tumbling

Guide body parts through movement pattern physically.

Create self-testing activities for the bedridden in accordance with ranges of motion and movable body parts; fasten a colorful ruler to side of bed near the body part to measure range of movement.

Story plays, creative drama

Stress self-care and activities of daily living such as brushing teeth, hanging up clothes, tying shoe laces, or buttoning a shirt in the stories.

Decorate wheelchairs and beds to portray ideas in a story.

Aquatics

Encourage movement patterns of any type at the beginning; allow an individual to explore movement possibilities since water enables many to move parts that they could not move otherwise.

Capitalize on movable body parts and individualize basic swimming/survival skills even if extreme modifications are necessary.

Rehabilitation-Education Team Approach

Physical activity should be established and conducted as a result of communication with all members of a rehabilitation-education team such as physicians; social workers; counselors; psychologists; psychiatrists; occupational, physical, corrective, recreational, and speech therapists; physical educators; nurses; administrative and support personnel; volunteers; and family. This rationale is partially illustrated by the film *Someone Waiting*[2] which initially depicts a state hospital where bed-confined children with severe cerebral dysfunction and multiple handicaps are given custodial care but, for the most part, are not given physical activity. The staff and children exist in dull, uninteresting and sedentary circumstances until the aides and nursing staff start to ask therapists for assistance. This communication results in provision of appropriate environmental stimulation and therapeutic handling of the youngsters. The children's responses to personal loving care, new physical activities, and sensory stimulation experiences are quietly but vividly shown. Although improvement was slight in most cases, progression was made—for example, some children were able to lift their heads for the first time, to eat more independently, and to move their bodies better.

Another example of an institution's efforts to change from a custodial model to a rehabilitation-educational model is described after public attention in 1968 was focused upon that particular state school and hospital with resulting outrage and shame at man's inhumanity to his fellow man.

> Every citizen is entitled to rights implicit in the Declaration of Human Rights for the Mentally Retarded. No matter how severe the handicapping situation may be, every avenue is explored in developing constructive and positive approaches for the enhancement and betterment of self-dignity; the continuing development of full productive life . . . The sum total of the differences between what Pennhurst was, presently is, and soon will be is immense. It is the difference between "hopeless ones" and *all can learn*. It is the difference between a "defective patient" and a *citizen with retarded behavior*. It is the difference between "seclusion" and "exclusion" and *contingency management and meaningful participation* of all. It is the difference between "warehousing items" and *providing homelike settings for individual human beings*.[3]

This article deals with the provision of physical activity for the severely and profoundly mentally retarded persons with particular emphasis on profoundly mentally retarded residents in direct care institutional settings as in state hospitals and state schools. In addition, there are numerous exceptional physical activity programs for severely and profoundly mentally retarded individuals such as those offered in continuum care settings as in halfway houses and foster/personal care homes, by community recreation programs, day care centers, and special recreation centers. However, although a multitude of excellent-to-satisfactory programs do exist, and many changes have been made, there still remain too many situations in which poor-to-shocking conditions prevail, as illustrated by the following excerpt from a newspaper article concerning a state hospital for the mentally retarded.

> Close to 900 persons spend their days doing nothing, sitting in drab dayrooms, watched over by a lone counselor or nursing assistant. Entertainment is a fuzzy black-and-white television. Once a week there is a dance at the school, sometimes a movie. Occasionally there are trips for a few . . . [In one building] a $3 million "showpiece" opened two years ago to house 200 profoundly retarded persons, most of the population is locked in bare, tiled day rooms. Many of them sit in stupors having been administered heavy doses of tranquilizers. Youngsters who spend most of their lives tied up in straitjackets—euphemistically called "mummies" also are tied to benches with strips of cloth. *They are able only to move their legs and heads* (italics added).[4]

Author's note:

The implications of that final paragraph are obvious. This is a call for action—to YOU! □

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[2] 16mm, sound, color, 25 minutes, available from Extension Media Center, University of California, Berkeley 94720.

[3] Smilovitz, Robert. "Pennhurst in Perspective: Purpose, Programs, Possibilities." (Mimeographed materials.) Spring City, Pa.: Pennhurst State School and Hospital.

[4] Satchell, M. "The Retarded—No Place to Go." *Washington Star-News*, October 22, 1973.

PART ONE

EXAMPLES OF BEHAVIORS TO BE DEVELOPED AND SUGGESTIONS FOR PHYSICAL AND RECREATIONAL ACTIVITIES

Examples of behaviors to be developed and physical and recreational activities to develop the given behaviors are offered as suggestions for aides; volunteers; parents; support personnel; nurses; physical educators; occupational, physical, corrective, recreational and speech therapists; psychiatrists; psychologists, counselors; social workers and physicians who are members of the rehabilitation-education team.* The suggestions are not intended to be comprehensive or to be used in toto for all people but rather, are offered as catalysts for other ideas or suggestions to be selected for a particular individual after careful consideration by members of the team. Behaviors and activities are presented for the following program goals for the participant: a) optimum arousal levels, (b) enhanced response to and discrimination of sensory stimuli, c) efficient motor-perceptual skills to learn about environment, d) increased independence, e) efficient self-help and activities of daily living skills, f) mature social interaction, g) effective communication abilities, h) improved physical growth and development, and i) personal fulfillment and enhanced amusement.

A. OPTIMUM AROUSAL LEVELS

Behaviors	Activities
Adequate alertness to surrounding environment	Therapeutic techniques** prescribed by rehabilitation-education team
Sufficient arousal for participation but not over-arousal	Therapeutic techniques, relaxation techniques
Response to sensory stimulation	Therapeutic techniques, crib toys, mobiles
Motivation for participation	Therapeutic techniques, reinforcement of response

B. ENHANCED RESPONSE TO AND DISCRIMINATION OF SENSORY STIMULI

Behaviors	Activities
Reacts to temperature changes	Therapeutic techniques, exposure of skin to icing and thermal variations, ice cube play

*Some of the behaviors and activities are adapted from D. Geddes, *Physical Activities for Individuals with Handicapping Conditions*, C.V. Mosby Company, St. Louis, Missouri, 1974.

**Specific therapeutic suggestions made by a team member for a particular participant; i.e., eliciting a startle reflex by a sudden light or sound.

Behaviors	Activities
Receives tactual input	Therapeutic techniques, toweling, brushing, stroking and tapping, mud pie play, water play
Responds to light, colors and shapes in environment	Therapeutic techniques, presentation of diverse sensory stimuli for response and discrimination
Reacts to auditory input	Therapeutic techniques, verbal communication
Recognizes kinesthetic feelings about body	Holding, restraining, positioning, and physically moving body and body parts through movement patterns
Perceptual abilities-- . Visual perception (visual acuity, oculo-motor efficiency, spatial awareness visual tracking, depth perception, figure-ground relationship, color recognition, form discrimination)	Perceptual motor activities [There are numerous programs and evaluative criteria which might be employed. Information and bibliographical references for these activities are provided in the book Annotated Bibliography on Perceptual-Motor Development published by the American Alliance for Health, Physical Education and Recreation. This is annotated in Part Two, section on "Physical and Recreational Activities," page 25 of this guide].
. Auditory perception (sound localization, rhythm discrimination, figure-ground selection)	"
. Tactile perception	"
. Kinesthetic perception	"
. Intersensory integration	"

C. EFFICIENT MOTOR PERCEPTUAL SKILLS TO LEARN ABOUT ENVIRONMENT

Behaviors	Activities
Has head control	Attention getting devices
Rolls from back to front and vice versa	Therapeutic techniques prescribed by rehabilitation-education team
Goes from lying to sitting positions	Therapeutic techniques, mat work

Behaviors	Activities
Sits with support	Therapeutic techniques, sits by positioning with pillows, stuffed animals or inflatables (see attached reprint)
Sits without support	Toy play, feeding activities, rocking boats
Creeps and crawls	Toy play, motivational techniques, going through tunnels and boxes
Pulls up on furniture or objects	Innertube play, toy play, chair play
Stands with support	Standing table play, therapy sessions
Stands without support	Toy play, arts and crafts, spectator activities, therapeutic techniques
Walks with support	Therapeutic techniques
Walks without support	Walking forward, sideward, backward, on toes and in different speeds and directions, follow-the-leader games, walking on lines
Climbs stairs with support	Therapeutic techniques
Climbs stairs without support	Motivational and therapeutic techniques
Manipulation of objects— . Has eye hand coordination . Reaches, grasps, holds, and releases . Transfers an object from one hand to another and from one place to another . Has preferential handedness	Coloring, block building, puzzle building, cutting paper, stacking rings, placing spools over nails, snapping clothespins around edge of can, self-care skill practice, stringing beads, toy play, throwing activities, play dough activities, drawing, painting, transferring of objects, doll play

D. INCREASED INDEPENDENCE

Behaviors	Activities
Improved self-direction and initiation of tasks	Arts and crafts, hobbies
Makes decisions	Many physical and recreational activities

Behaviors	Activities
Continues and completes tasks more independently	Arts and crafts, hobbies, many physical and recreational activities

E. EFFICIENT SELF-HELP AND ACTIVITIES OF DAILY LIVING SKILLS

Behaviors	Activities
Buttons and unbuttons	Practice sessions, creative drama, story plays, developmental activities, activities with small equipment, rhythms, relays, games, use of skills in everyday living
Opens and closes snaps	"
Opens and closes zippers	"
Ties and unties knots or bows	"
Puts on and takes off boots, shoes, socks, mittens, gloves, and wearing apparel	"
Toilets himself semi-independently or independently	"
Drinks juice or liquids from fountain, glass or cup	"
Eats finger foods or eats with tableware	"
Carries out personal grooming such as brushing teeth, combing hair, washing hands and face and wiping nose	"
Cleans and maintains clothing	"
Puts toys away and maintains own personal area in room	"
Exhibits safety skills such as awareness of fire hazards, proper use of toys and equipment, safe behavior on bus, identification and knowledge of traffic signals and signs, and water safety	"

F. MATURE SOCIAL INTERACTION

Behaviors	Activities
Progresses *from* independent play, parallel play, co-operative play *to* group play	Toy play, recreational activities, water play, sand box play, stunts, dual activities, relays, rhythms, game situations
Recognizes limits of environment and respects property	Activities with large and small apparatus, aquatics, games and relays with boundaries and lines
Shows desirable social skills such as following directions, taking turns, sharing with others and getting along with others	Game situations, relays, arts and crafts, group activities
Uses proper social words	Use of words such as "thank you", "hello", and "good-bye" in role playing, game situations, in every day living, and story plays
Uses self-control such as discriminating right from wrong, accepting correction, controlling undesirable behavior, appropriate releasing of emotional feelings	"Show and Tell" sessions, isolated and quiet periods, large muscle skill play, game situations, group play, punching bag, finger painting, puppetry, story plays, running, creative dance
Accepts responsibility	Putting equipment and toys away, finishing tasks, feeding fish and pets, watering plants, game situations with rules

G. EFFECTIVE COMMUNICATION ABILITIES

Behaviors	Activities
Focuses attention on speaker with eye-to-eye contact	Story plays, listening to person reading a book
Understands and employs facial expressions and physical gestures	Role playing, creative drama, rhythms, mirror play
Listens and responds to oral language in addition to recognizing different meaning in various tones and pitches in speech	Story plays, visits to theatre and motion pictures

Behaviors	Activities
Verbalizes what he is doing as he does it	Arts and crafts, physical activities
Recognizes labels and names of objects	Activities with large and small equipment
Verbalizes desires, feelings and has a communicative dialogue	Rhythms, singing, "Show and Tell" sessions, puppetry
Imitates actions, sounds, and words	Rhythms, story plays, puppetry
Uses reading and purposeful communication	Reading posters, signs, cards, and books in the physical/recreational activity situations
Uses printing and writing for purposeful communication	Writing or printing on posters and signs to be used in the physical/ recreational activities
Spells adequately for use in writing and reading	Reading, writing or printing as above

H. IMPROVED PHYSICAL GROWTH AND DEVELOPMENT *

Behaviors	Activities
Runs	Running in different speeds and directions, in games, relays, tag, movement exploration, rhythms
Jumps	Obstacle course, jumping board, trampoline, air mattress, innertube, jumping rope, tire play
Hops	Relays, rhythms, movement exploration
Slides	Rhythms, creative dance, basic movement activities
Pedals tricycle or bicycle	Free play, relays, obstacle course
Balances on objects or apparatus	Balance beam, homemade equipment

*Earlier motor behaviors are given in Section C to present sequential stages that are usually observed in motor development. A checklist based upon these behaviors will indicate functional levels of each person in this area.

Behaviors	Activities
Skips	Locomotor activities, rhythms
Gallops	Locomotor activities, rhythms
Pushes and pulls	Body mechanics, toy or wagon play
Kicks	Ball play, small equipment play
Throws	Two hand and one hand ball throwing, beanbag games, small equipment throwing
Catches	Stopping rolling ball, chest catch, two hand catch, one hand catch, change from large to small objects in catching
Bounces ball	Two hand and one hand bouncing, games, relays, movement exploration
Strikes objects	One hand, two hand striking without and with implement
Performs specific movement patterns	Game situations, relays, rhythms, developmental activities, individual and dual activities, aquatics
Exhibits adequate physical fitness competencies-- . Static, explosive, and dynamic strength . Cardiovascular-respiratory endurance . Flexibility . Static and dynamic balance . Multi-limb and gross body coordination	Physical fitness activities, practice sessions, semi-competitive events, physical activities

I. PERSONAL FULFILLMENT AND ENHANCED AMUSEMENT

Behaviors	Activities
Expresses himself	Creative drama, movement exploration, rhythms, arts and crafts, puppetry, story plays

Behaviors	Activities
Has feelings of success and accomplishment	All physical and recreational activities, camping, hiking, nature trails, variety shows, table games, parties, Halloween parade
Enjoys himself	Field trips, Easter Egg Hunt, community excursions, theatre and motion picture trips, games, circuses, trips to zoo, picnics, community recreation, visiting entertainment, hobbies, clubs, winter activities, special events, special interest groups
Has improved self-concept	Success in physical and recreational activities, mirror activities, rhythms, identification of body parts, movement of body and body parts.

PART TWO

ANNOTATED LIST OF REFERENCES

Part Two presents a list of references which were selected after a review of available information.* The majority of the references are annotated and listed in the following sections: a) General Information and Educational/Training Programs, b) Educational/Training Programs Which Describe Physical or Recreational Activities, c) Physical and Recreational Activity Programs, d) Equipment and e) Evaluation.

A. GENERAL INFORMATION AND EDUCATIONAL/TRAINING PROGRAMS

1. AMERICAN Association on Mental Deficiency. *Mental Retardation--Improving Resident Care for the Retarded.* Washington, D.C.: the Association, 1965.

2. BAUMEISTER, Alfred, editor. *Mental Retardation.* Chicago, Illinois: Aldine Publishing Company, 1967. $12.50.

3. BENOIT, E. "More Fun for Institutionalized Retarded Children." American Journal of Mental Deficiency 58: 93-107; July 1953.

4. BENSBERG, Gerard J. and Charles D. Barnett. *Attendant Training in Southern Residential Facilities for the Mentally Retarded: Report of the SREB Attendant Training Project.* Atlanta, Georgia: Southern Regional Education Board, 1966.

   Report of a five-year project sponsored by the Southern Regional Education Board which gives guidelines for attendant training in institutions for the retarded. Includes curriculum development, organization and implementation of programs, evaluation, summary and resource materials.

5. CENTER for Developmental and Learning Disorders. *Minimum Standards for Activity Programs for the Retarded.* Birmingham, Alabama: University of Alabama Medical Center, n.d.

   Standards for activity or training centers (day care centers) to be established for the retarded, including the profoundly mentally retarded and the multiple handicapped. These community programs emphasize self-care, social and vocational skills.

*This list includes some references which are related or applicable to programing for severely and profoundly retarded persons even though these materials or publications do not deal specifically with this handicapping condition.

6. DECKER, Harold A. *A System for Planning and Achieving Comprehensive Health Care in Residential Institutions for the Mentally Retarded.* Ann Arbor, Michigan: The University of Michigan, (Dept. of Health Development) 1970.

Comprehensive programing for residential institutions. Section on Evaluation of the Resident's Clinical Status assists in establishing functional levels of participants.

7. DISTRICT of Columbia Public Schools. *Special Education: The Severely Mentally Retarded.* Washington, D.C.: District of Columbia Public Schools, 1965.

8. FRANKEL, Max, William F. Happ and Maurice Smith. *Functional Teaching of the Mentally Retarded.* Springfield, Illinois: Charles Thomas Publishers, 1966.

Part I describes teaching principles and practices: objectives of curriculum, characteristics of children, methodology, learning theories, motor activities, perceptual training, motor-perceptual integration and case histories. Part II describes areas of instruction: physical-perceptual developmental stages. Basic levels are related to physical education activities.

9. GROSSMAN, Herbert J., editor. *Manual on Terminology and Classification in Mental Retardation.* Washington, D.C.: American Association on Mental Deficiency, 1973.

Technical information on terminology and classifications, including definitions, in mental retardation based upon up-to-date knowledge, research and clinical experience in the field nationally and internationally.

10. HUNTER, Marvin, Helen Schucman and George Friedlander. *The Retarded Child from Birth to Five.* New York, New York: The John Day Company, 1972.

Program at the Shield Institute (New York) reviewed and comprehensive diagnostic procedures and treatment programs outlined. Some sensory-motor information given.

11. HUTT, Max L. and Robert Gwyn Gibby. *The Mentally Retarded Child: Development, Education and Treatment.* Second Edition. Boston, Massachusetts: Allyn and Bacon, Inc., 1965.

Authors believe that every retardate can have a meaningful and productive place in society, if society is willing to offer him appropriate opportunities to develop his full potential and to offer him suitable guidance and training. Discussion is given to problems of educational administration, organization of classes, general and specific methods of teaching, special learning problems and application of learning theory.

12. JERVIS, George A., editor. *Expanding Concepts in Mental Retardation.* Springfield, Illinois: Charles C. Thomas, Publisher, 1968.

    Presentations made at the Third Bi-Annual Scientific Symposium on Mental Retardation sponsored by The Joseph P. Kennedy Jr. Foundation, in Boston, during April 1966. Papers presented included: genetics of mental retardation; deprivation factors in mental retardation; operant techniques in mental retardation; rehabilitation in mental retardation; and physical performances of the mentally retarded. (The latter category includes "Recreation for the Severely Mentally Handicapped" and "Current Status of Research on Physical Activity for the Retarded.")

13. JOINT Commission on Accreditation of Hospitals. *Standards for Community Agencies.* Chicago, Illinois: Accreditation Council for Facilities for the Mentally Retarded (875 N. Michigan Ave.), 1973.

    Standards applicable to all agencies that provide non-residential services, including generic agencies that serve persons with developmental disabilities: case finding, follow along, individual program plan, client program coordination, protective services, advocacy, guardianship, community education, prevention, program evaluation and research. Also standards for individual assessment, health needs, developmental needs, employment and work and program administration.

14. KIDD, John W. *Curriculum Guide: Trainable Mentally Retarded Children and Youth.* Rock Hill, Missouri: St. Louis County Special School District, 1966.

    Objectives, implementing experiences, and resources in four areas of development are presented for trainable mentally retarded children (ages 6 to 21) on primary, intermediate, and advanced levels. Social development includes adjustment, self-care skills, environmental orientation, and leisure time activities; physical development covers conditioning exercises, motor skills, structured play, and evaluation; development of intellect treats language arts, number concepts, arts and crafts, and music; and occupational development includes homemaking and job training.

15. KIRK, Samuel A., Merle B. Karnes and Winifred D. Kirk. *You and Your Retarded Child.* New York, New York: MacMillan Company, 1955. $1.50.

16. LARSEN, Lawrence A. and William A. Bricker. *A Manual for Parents and Teachers of Severely and Moderately Retarded Children.* Nashville, Tennessee: George Peabody College (IMRID), 1968. $1.00.

    Instructional booklet for the education of parents or teachers who will be working with lower-functioning retarded children. Part One

describes behavioral evaluation and behavior modification. Part Two specifies activities in self-care, activities of daily living, communication, and imitation of movements and words. Easily readable and useful outline for the education and training of severely/moderately retarded children.

17. MEYERS, Elizabeth S. *The Kindergarten Teacher's Handbook.* Los Angeles, California: Gramery Press, 1973. $3.00.

Foundational information on testing and teaching kindergarten level skills, including perceptual-motor. Teaching methodology and behavior management given.

18. MICHIGAN Department of Education. *Manual for Operation of Day Care Training Centers for the Severely Mentally Impaired.* Lansing, Michigan: Michigan Department of Education (Special Education Services Area), May 1973.

Administrative rules, policies and guidelines for day care training programs for severely and profoundly retarded persons.

19. NISHBALL, Patricia and Allan Barclay. "Day Training for the Profoundly Retarded." Mental Retardation 8: 4: August 1970.

The establishment of the Child Development Day Activity Center, Cardinal Glennon Memorial Hospital for Children, St. Louis University, is described: Purpose, goals, activities, methodology and information regarding types of profoundly retarded children.

20. OGG, Elizabeth. *Securing the Legal Rights of Retarded Persons.* Public Affairs Pamphlets, New York, New York: Public Affairs Pamphlets (381 Park Avenue, South, 10016) 1973. 35¢.

Prepared in cooperation of the President's Committee on Mental Retardation, this pamphlet gives case histories and discussion concerning legal aspects of education, training, vocation, legal counsel, and other legal rights of the mentally retarded.

21. PAINTSVILLE Board of Education. *Curriculum Guide for Trainable Mentally Retarded.* Louisa, Kentucky: Eastern Kentucky Educational Development Corporation, 1968.

History and identification information for the trainable mentally handicapped. Each area presents importance of unit, objectives, an outline of content, sources of information, evaluation techniques, and work-study skills integrated into the unit. Included are self-care, economic usefulness, language development, social adjustment, music, arts and crafts, and physical education.

22. PITTSBURGH University. *Pilot Workshops Utilizing the Simulator and Training Materials Developed for In-Service Programs for Leadership Personnel Employed in Residential Institutions for the Mentally Retarded.* Pittsburgh, Pennsylvania: Pittsburgh University, August 31, 1971.

Described is the development and field testing of a set of simulation training materials, the Shannon Materials, to train management personnel of residential institutions for the mentally retarded. Defined and discussed is simulation as a training method. The materials are described as including slide-tape presentation of a real community and a real state school and hospital.

23. PRESIDENT's COMMITTEE ON Mental Retardation. *Current Issues in Mental Retardation.* Washington, D.C.: Government Printing Office, 1971.

Report of 1970 Staff Development Conference of the President's Committee on Mental Retardation. Topics included information on etiology, condition and effects of mental retardation. Discussion of developmental evaluation of pre-school aged children.

Presentation on rubella and resulting handicapping conditions such as multiple handicapped.

24. _____. *MR 72: Islands of Excellence.* Washington, D.C.: Government Printing Office, 1973.

Report which presents a variety of national, state, regional and local programs which deal with mental retardation and associated problems.

25. ROSENZWEIG, L. and J. Long. *Understanding and Teaching the Dependent Retarded Child.* Darien, Connecticut: Teacher's Publishing Company, 1968.

26. SAN FRANCISCO United School District. *Curriculum Material for the Severely Mentally Retarded.* Revised Edition. San Francisco, California: San Francisco United School District (Atypical Department, Child Welfare Division), 1960.

27. SECRETARY's COMMITTEE on Mental Retardation. *Mental Retardation Publications.* (Bibliography). Washington, D.C.: Secretary's Committee on Mental Retardation (U.S. Department of Health, Education and Welfare), 1971.

An annotated bibliography listing publications by H.E.W. which deal with mental retardation in addition to other accompanying handicaps. The sections covered are: general, legislation and

federal programs, specific handicapping conditions, institution and home care, detection, diagnosis and treatment, rehabilitation, education and employment, and family.

28. SUNLAND Training Center. *Outline of the Program for Trainable Residents.* Gainesville, Florida: The Center, May 15, 1964.

    Philosophy, goals, and description of residents are presented. Activities outlined for beginners, intermediates, adult men, and adult women in the following 1) perception development, 2) communication and expression skills, 3) motor skills, 4) number concepts, 5) personal health and grooming skills, and 6) recreational and social activities. Separate section outlines program for blind trainable retarded in discrimination skills, learning skills, music activities, self expression, and social skills. Ground maintenance program for boys and general education program are also described.

29. TRILLINGHAM, C. C. *The Education in Special Training Classes of Children Who Are Severely Mentally Retarded, a Handbook for Teachers to Use With Parents.* Los Angeles, California: Los Angeles County Board of Education, January 1960.

30. VINELAND State School. *Vineland State School: Guide for Training of the Severely Retarded.* Vineland, New Jersey: the School, 1961

31. VIRGINIA State Department of Education. *Educational Planning for Severely Retarded Children.* Richmond: State Department of Education (Special Education Service), n.d.

32. _____. *Guide for Curriculum Development for Teachers of Trainable Mentally Retarded Children.* Richmond: State Department of Education, (Division of Special Education), January 1973.

    Guide which is applicable to lower functioning levels of mentally retarded persons. Goals, characteristics, curriculum, role of teachers, activities based upon social, emotional, mental and physical development and evaluation.

33. WILLIAMS, Harold M. *Education of the Severely Retarded Child-Classroom Programs.* Washington, D.C.: Government Printing Office, 1961.

B. EDUCATIONAL/TRAINING PROGRAMS WHICH DESCRIBE PHYSICAL OR RECREATIONAL ACTIVITIES

1. ALPERN, G. D. and T. J. Boll. *Education and Care of Moderately and Severely Retarded Children, with a Curriculum and Activities Guide.* Seattle, Washington: Special Child Publications, Inc., (4535 Union Bay Place, N.E.) 1971.

   Teaching techniques, planning strategies, and important basic skills to be learned by mentally handicapped children. Curriculum and Activities Guide is arranged according to Curriculum Age Level Task, Aims and Purposes, and Description of Activity.

2. ANTILL, Francis, editor. *Day Care Center Curriculum Guide.* Baton Rouge, Louisiana: Louisiana State Department of Hospitals (Division of Mental Retardation), 1965.

   Content, materials, and teaching suggestions provided for: self-care skills; motor skills and coordination; communication; socialization; vocational training safety; health; and intellectual stimulation.

3. CONNOR, Frances P. and Mabel E. Talbot. *An Experimental Curriculum for Young Mentally Retarded Children.* New York, New York: Teachers College Press (Columbia University), n.d.

   A curriculum developed as part of a five-year study to determine the influence of group experience upon a sample of young educable mentally retarded children: curricular content, methodology, settings and activities, administration and evaluation. The lower levels of curricular behaviors and readiness are applicable to severely and profoundly retarded individuals.

4. CONTRUCCI, Victor J., editor. *Wisconsin We Do It This Way Series: A Resource Guide for Trainable Mentally Retarded.* Madison, Wisconsin: Wisconsin State Department of Public Instruction (Bureau for Handicapped Children), 1966.

   Units in health, safety, social experiences, communication of ideas, use of leisure, travel, money management, homemaking, art and art appreciation, adaptation to environment, material values, and citizenship. Areas include self-help, motor, social, academic, and vocational skills. Provides lesson plans, objectives, procedures and activities, directions for construction of and bibliographical references to materials, and evaluation methods. Guide to the persisting life functions also provided.

5. DAVIS, Patricia A. *Methods and Aids for Teaching the Mentally Retarded.* Minneapolis, Minnesota: T.S. Denison & Company, Inc., 1970.

   Curricular outline for mentally retarded children in special classes; objectives, techniques, skills, concepts and activities, including physical education and recreation.

6. EGG, Maria. *Educating the Child Who Is Different.* New York, New York: John Day Company, 1968.

   Part I: relationship of the teacher to the retarded child and his family; Part II: how to educate retarded children. Specific chapters deal with Play, Music and Rhythm, Drawing and Painting, The Manual Arts.

7. GILMORE, Alden S., Thomas A. Rich and Charles F. Williams. *Mental Retardation: A Programmed Manual for Volunteer Workers.* Tampa, Florida: MacDonald Training Center Foundation (Research Division), 1965.

   Orientation and background information for conducting programs for the retarded which will increase understanding the retarded. Sections on mental retardation, education of the retarded, behavior of the retarded, physical ability of the retarded, recreation for the retarded, family relations, brain damage, speech and hearing, health, and rehabilitation.

8. INDIANA State Department of Public Instruction. *Implementing Programs for Trainable Mentally Retarded Children.* Indianapolis, Indiana: The Department, 1967.

   Major task areas: family group, communication skills, physical development, socialization, recreational interests and skills, and preparation for work oriented activity. Six papers are presented: Precision Teaching and Behavior Modification at the Johnny Appleseed School; Establishment of Conference Purposes and Aims; The Elementary Secondary Education Act of 1965; The Quality of Programs for the Moderately Retarded; and Physical Education for the Retarded.

9. LINCOLN School. *A Flexible Guide for Teachers of Trainable Children.* Nutley, New Jersey: the School, 1966.

   Curriculum content and learning activities for three levels of ability: 1) aspects of social living--courtesy, responsibility to others, and group participation; 2) aspects of number development--counting and concept of measurement; 3) language arts--communication, listening, reading, and writing. Suggested activities for music and physical education are included.

10. LOWN, Irving C., Jr. *Pre-Professional Training in Mental Retardation Final Report.* Coolidge, Arizona: Arizona Children's Colony, September 26, 1968.

To interest students in mental retardation health services careers, 10 eligible prebaccalaureate students were selected to participate in a 10-week summer training program: the first two weeks involved orientation to mental retardation and health services related disciplines of recreational and physical therapy. For the remaining eight weeks, students, five in physical and five in recreational therapy, were assigned to two cottages consisting of 126 female profoundly retarded residents. Stimulation and training program with supervision by professional representatives was provided. Results indicated residents showed improvement in self-care abilities, motor behavior and more mature social responsiveness. Evaluation of the students, indicated involvement on the part of the students, a sense of professional identification, and acquisition of appropriate skills and attitudes.

11. MOLITOR, M. Graham. *A Curriculum for the Residential Trainable Child.* Seventh Edition. Union Grove, Wisconsin: Southern Wisconsin Colony and Training School, 1967.

Curriculum to meet needs of trainable mentally handicapped developed at Southern Wisconsin Colony and Training School for children 5-17 years of age is detailed, as is the curriculum for work orientation. Descriptions of specialized and supporting programs (music, speech and language, physical education, and field trips).

12. MOLLOY, Julia S. *Trainable Children.* New York, New York: John Day Company, 1972.

An aid for 1) planning a program for trainable children, 2) presenting basic learning techniques, and 3) evaluating effectiveness of the curriculum and progress of children ("trainable" retarded and the multiply handicapped). Section on physical growth includes gross motor and fine motor development, physical education and play.

13. OHIO Department of Mental Hygiene and Correction. *More Effective Teaching Through Understanding.* Columbus, Ohio: Ohio Department of Mental Hygiene and Correction (Division of Mental Hygiene, Bureau of Mental Retardation), n.d.

Programing for mentally retarded includes learning readiness, discipline, communication, self-care, physical development, eye-hand coordination, social competence, music, rhythmics, drama, arts and crafts and other related areas.

14. OKLAHOMA State Department of Education. *A Guide for Teachers of Trainable Mentally Retarded Children.* Oklahoma City: Oklahoma State Department of Education, 1968.

Philosophy, administration and policies, general aims and objectives, suggestions for evaluation of student and curriculum of the Oklahoma State Program for trainable children. Activities and suggestions: self-care, home-community usefulness, physical education, language development, number concepts, music therapy, and art therapy. Problems in parent counseling, sample programs and equipment are considered.

15. PERRY, Natalie. *Teaching the Mentally Retarded Child.* New York, New York: Columbia University Press, 1960.

Discusses problem of home, school, and community coordination in encouraging self-expression and self-care in severely mentally retarded or trainable children. Sample charts for evaluating pupils, names of manufacturers and distributors of toys and games, typical school schedules, and specific suggestions for making everything from a paper lantern to a coat rack. Chapters deal with physical development of the retarded, music activities, crafts, and physical activities.

16. ROGOUIN, Anne. *Learning By Doing: An Illustrated Handbook for Parents and Teachers of Children Who Learn Slowly.* Johnstown, Pennsylvania: Mafex Associates, Inc., 1971.

Education and training programing for mentally retarded children and youth: areas include health, physical education, music and art.

17. SCHEERENBERGER, R. C. *Training the Severely and Profoundly Mentally Retarded.* Springfield, Illinois: Illinois Department of Mental Health (Division of Mental Retardation Services), 1967.

Monograph papers presented at a 1967 training institute for day care personnel in Illinois: training goals and curriculum, diagnosis and evaluation, methodology, sensorimotor development, communication skills, arts and crafts, and music.

18. SCOTT, Mary D. *Creative Ways of Teaching the Mentally Handicapped.* Honolulu, Hawaii: Hawaii Department of Education (Office of Instructional Services, Special Service Branch), August 1966.

Overall educational program for trainable mentally retarded discussed which emphasizes physical training: active and passive activities are described in detail

19. SHELBY County Schools. *Special Education Curriculum Guidelines: Trainable Mentally Retarded.* Memphis, Tennessee: Shelby County Schools, 1968.

Includes general goals and basic understandings, activities, materials, and evaluation. Units: social adjustment; health (physical education, nutrition, and body care); community helpers; safety; language development; numbers; music; color; arts and crafts; work tasks leading to vocational rehabilitation; evaluation of program; and evaluation of child.

20. SOUTHEAST Region Special Education Service Center. *An Experimental Curriculum Guide for Teachers of the Trainable Mentally Retarded.* Downey, California: Southeast Region Special Education Service Center, 1968.

Experimental curriculum utilizes activities sequenced in order of difficulty. Units on self-understanding and self-care, communication, and social competence; also included are units on sensory and gross and fine motor skills. Further units include recreational skills for self-motivation and leisure activities.

21. SUN Dial School. *Curriculum for the Trainable Mentally Retarded.* Fort Lauderdale, Florida: Broward County Board of Public Instruction, 1966.

Characteristics of the trainable child, the importance of parent education, and an overview of curriculum objectives and educational needs are presented. Objectives, materials, and suggested teaching activities for primary and intermediate levels in areas of communication skills, listening and language development, social development, reading, arithmetic, science, music, art, physical education, home economics, and workshop and plant nursery experience.

C. PHYSICAL AND RECREATIONAL ACTIVITY PROGRAMS

1. ABERNETHY, Kathleen, Judy Cowley, Harold Gillard, and John Whiteside. *Jumping Up and Down: A Manual of Motor Activities to Develop Balance and Coordination.* San Rafael, California: Academic Therapy Publications, (1539 4th St.), 1970. $2.00.

Activities for boys and girls five to thirteen years of age. Individual, partner, and group activities with and without equipment: warm-up, balance, springing and landing, strengthening, cardiorespiratory, flexibility, and floor routines.

2. ALKEMA, Chester J. *Art for the Exceptional.* Boulder, Colorado: Pruett Publishing Company, 1971.

Activities, methodology and rationale are presented for art experiences for the physically handicapped, emotionally disturbed, juvenile delinquent, deaf, gifted, mentally retarded and blind.

3. AMERICAN Association for Health, Physical Education and Recreation. *Annotated Bibliography on Perceptual-Motor Development.* Washington, D.C.: the Association, 1972. $3.25.

An up-to-date bibliography with sections devoted to auditory perception and movement; body image and movement; and depth-distance perception and movement. A separate compilation of tests, programs, material sources, assessment instruments and films is included.

4. _____. "Approaches to Perceptual-Motor Experiences." Reprints from Journal of Health, Physical Education, and Recreation. Washington, D.C.: the Association, 1970. 50¢.

An overview of programs relating perceptual-motor experiences to movement education, motor abilities, reading readiness, and the problem child.

5. _____. *Best of Challenge.* Washington, D.C.: the Association, 1971. $2.50.

A compilation of the best articles from *Challenge*, AAHPER's newsletter for special educators, physical educators, recreation and related personnel. Designed as a basic or supplementary text for college courses, and as a reference for workshops, clinics, seminars, institutes, classes, and similar in-service and pre-service programs.

6. _____. *Foundations and Practices in Perceptual-Motor Learning: A Quest for Understanding.* Washington, D.C.: the Association, 1971. $3.95.

A multidisciplinary examination of major conceptual viewpoints of perceptual-motor behavior and teaching methods, from the October 1970 Cincinnati Conference. Includes descriptions of action programs, tests, resource materials, and a professional preparation survey.

7. _____. *Guide for Programs in Physical Education and Recreation for the Mentally Retarded.* Washington, D.C.: the Association, 1968. $1.00.

Suggested activity areas such as physical fitness, motor ability, sports skills, special events, recreation; evaluation, including an annotated listing of perceptual-motor, physical fitness, and motor

ability tests appropriate for the mentally retarded; motivation--award systems; facilities, equipment, and supplies; medical examinations; in-service education and training; volunteers; parents and the program; public relations and information.

8. _____. "Motor Activity and Perceptual Development - Some Implications for Physical Educators." Reprints from Journal of Health, Physical Education, and Recreation. Washington, D.C.: the Association, 1968. 25¢.

The relationships between motor activity and perceptual development including an annotated bibliography on selected readings.

9. _____. *Perceptual-Motor Foundations: A Multidisciplinary Concern.* Washington, D.C.: the Association, 1969. $3.00.

Describes action programs for developing sensory and motor skills, personalizing early education, and providing developmental activities.

10. _____. *Physical Activities for the Mentally Retarded: Ideas for Instruction.* Washington, D.C.: the Association, 1968. $2.00.

Activities promoting fundamental motor development and the exploration of three general areas of skill: 1) net, racket, and paddle activities; 2) rolling, pushing, throwing, and catching activities; and 3) striking and kicking activities.

For physical education instructors of the mentally retarded, classroom teachers, parents, recreation personnel, and volunteers.

11. _____. *A Practical Guide for Teaching the Mentally Retarded to Swim.* Washington, D.C.: the Association, 1969. $2.00.

Guide is a composite of ideas and experience of many who have taught the mentally retarded to swim. Contents of the Guide are a point of departure for each instructor who will have to find the most appropriate methods, techniques, and progressions. Designed for professionals and volunteers, for individuals with little or no background with the mentally retarded, for those with minimal swimming experience, and for personnel with little background in either area.

12. _____. *Programing for the Mentally Retarded in Physical Education and Recreation.* Washington, D.C.: the Association, 1968. $3.00.

Report of a national conference on programing in physical education and recreation for the mentally retarded. Topics covered

include recreation and day care for the mentally retarded; a community recreation team approach to programing; the role of motor activities in programs for the retarded; recreation programing for the adult retardate; and programs for the severely and profoundly retarded.

13. _____. *Recreation and Physical Activity for the Mentally Retarded.* Washington, D.C.: the Association, 1966. $2.00.

Covers the objectives of recreation, brief description of mental retardation, what play can mean for the retarded, objectives and desired outcomes of programs in physical activity, organization and teaching, and suggested specific activities. Annotated bibliography of source materials.

14. ATNEY, John W. *Sing and Learn.* New York, New York: John Day Company, 1965. $3.89.

This book of simple songs related to everyday life includes teaching instructions designed to make them more meaningful to retarded children.

15. AVEDON, Elliott M. *Recreation and Mental Retardation.* Washington, D.C.: Government Printing Office (Superintendent of Documents), 1966. 15c.

Subject of recreation for the mentally retarded is discussed: examples of activities for the retarded at home, in school, in community and agency programs are given. Resource information provided.

16. AVEDON, Elliott M. and Frances B. Arje. *Socio-Recreative Programming for the Retarded: A Handbook for Sponsoring Groups.* New York, New York: Bureau of Publications (Teacher's College, Columbia University), 1964. $1.50.

Rationale and procedure for organizations and groups to develop recreation programs for the retarded. Sections list source materials, bibliographical materials, and sample forms.

17. BERRYMAN, Doris L. (Project Director). *Enhancement of Recreation Service to Disabled Children, Part I.* Report of a three-year study supported in part from the Children's Bureau, U.S. Department of Health, Education, and Welfare. New York, New York: New York University (School of Education), 1971.

Final report of a study to: 1) obtain an estimate of the type and quality of recreation services provided to physically disabled and mentally retarded children and youth in a respresentative national sample of a wide variety of agencies, organizations and institutions in the public, voluntary, and private sectors; 2) develop recommended standards

and criteria for provision of recreation services to handicapped children and youth; 3) identify problems and obstacles encountered by recreation resources which do provide services to physically disabled and mentally retarded children and youth and discover the reasons why some resources provide these services to non-disabled children and youth only; and 4) write, and prepare for distribution, pamphlets which will assist communities and their agencies, organizations, and institutions in the initiation, improvement and/or expansion of recreation services to physically disabled and mentally retarded children and youth.

18. _____. *Planning Project for the Development of Recreation Services in Rehabilitation Centers.* Final Report supported in part from the Vocational Rehabilitation Administration, U.S. Department of Health, Education, and Welfare. New York, New York: New York University (School of Education), n.d.

Analysis of responses from the Planning Project indicates that though there hasn't been any appreciable change since 1959 in the proportion of agencies providing recreation services, there has been an increase in the proportion of agencies using full-time personnel to plan and conduct recreation services. Results also show that there is considerable divergence among rehabilitation agencies concerning almost every aspect of providing recreation services; administrative structure of services; and educational level and background of staff conducting services.

19. _____. *Recommended Standards with Evaluative Criteria for Recreation Services in Residential Institutions.* Report of a three-year study supported in part from the Children's Bureau, U.S. Department of Health, Education and Welfare. New York, New York: New York University (School of Education), 1971.

The suggested standards and evaluative criteria incorporated in this pamphlet are designed to assist a hospital or other institution in evaluating the recreation services it provides to residents. They were designed primarily to evaluate recreation services provided to children and youth, however, they are equally applicable to services provided to persons of all ages in a variety of residential treatment settings.

20. _____. *Recreation for Disabled Children: Guidelines for Parents and Friends.* Report of a three-year study supported in part from the Children's Bureau, U.S. Department of Health, Education and Welfare. New York, New York: New York University (School of Education), 1971.

Guidelines for parents and others concerning how to find recreation services, how to start a recreation program, and examples of successful programs.

21. Berryman, Doris L., Annette Logan and Bernard Broginsky. *Serving Disabled Children: Guidelines for Recreation Agencies.* Report of a three-year study supported in part from the Children's Bureau, U.S. Department of Health, Education and Welfare. New York, New York: New York University (School of Education), 1971.

Final report of Health, Education and Welfare grant giving guidelines for including all levels of disabled children in community recreation programs.

22. BETER, Thais R. and Wesley E. Cragin. *The Mentally Retarded Child and His Motor Behavior: Practical Diagnosis and Movement Experiences.* Springfield, Illinois: Charles C. Thomas, Publisher, 1972.

Educational experiences to enhance learning potential and total personality functioning of mentally retarded children. To assist anyone working with exceptional children in an educational, institutional, or recreational setting. Philosophical material, diagnostic and program planning are applicable to children with all types of learning difficulties. Intended for use with all levels of retarded.

23. BRAATEN, June. *Planning Recreational Activities for the Retarded Child at Home.* Toronto, Ontario, Canada: Canadian Association for the Mentally Retarded (149 Alcorn Avenue), 1969. 25¢.

Suggestions for planning recreational activities are addressed to parents and apply particularly to the trainable mentally retarded child who is not enrolled in a school program but remains at home. Activities will not only keep the child occupied and happy but can play a part in his development and learning. Plan for facilities at home is presented, indicating equipment and materials. Away-from-home activities which can be arranged by the parent are included. Some activities are applicable to continuum care situations for profoundly and severely retarded.

24. BRAATEN, June and Isabel Lee. *Swimming Program for the Trainable Retarded. Guides 1-3.* Toronto, Ontario, Canada: Canadian Association for the Mentally Retarded (149 Alcorn Avenue), 1969.

Three manuals about planning swimming program. Guide One: organization and administration, including committee personnel, facilities and equipment, staff and their qualifications, transportation, public relations, and finance. Guide Two: information on conducting the program in terms of staff duties and orientation, instructional program and teaching suggestions, and recording progress. Guide Three: testing and recognition, required materials, securing examiners, and sample test sheets and explanations.

25. BROWN, Richard L. *Swimming for the Mentally Retarded.* Arlington, Texas: National Association for Retarded Citizens (2709 Avenue E East), 1958. 25¢.

Guidelines for establishing a swim program for all levels of mentally retarded persons: organization, values, objectives, skills, teaching suggestions and program forms.

26. CANNER, Norma. *". . . and a time to dance."* Boston: Beacon Press, 1968.

One hundred and twenty-five photographs recording author's work with children and teachers in the development of simple, spontaneous, creative movement, designed to unlock the personalities and evoke the capabilities of retarded children.

27. CARDINAL Stritch College. *Physical Education Curriculum for the Mentally Retarded.* Milwaukee, Wisconsin: Cardinal Stritch College, 1962. $3.00.

Sequential development for children with mental handicaps. Goals, rhythmic response, group games, and physical fitness exercises are specified for several different levels, ranging from MA 3 to MA 12.

28. CARLSON, Bernice Wells. *Act It Out.* Nashville, Tennessee: Abingdon Press, 1956. $2.50.

Divided into two sections, the first on your own acting and the second on puppet performances. This book will help make acting fun for participants and audience alike.

29. CARLSON, Bernice Wells and David R. Ginglend. *Play Activities for the Retarded Child.* Nashville, Tennessee: Abingdon Press, 1961. $4.00

Play and recreational activities for the retarded: games; crafts; musical, informal, and imaginative play. Activities classified on basis of developmental areas--mental health, social, physical, language, and intellectual.

30. CARLSON, Bernice Wells and David R. Ginglend. *Recreation for Retarded Teenagers and Young Adults.* Nashville, Tennessee: Abingdon Press, 1968. $4.95

Book summarizes basic social and physical needs of teenage and young adult retardates. Methods and techniques for meeting needs through music, games, parties, sports, hobbies, and other

recreational activities. Activities listed for special recreational programs, community projects, and recreation at home.

31. CHALMERS, Thomas. "Value of Play in Nursing Severely Subnormal Children." Nursing Mirror 122: 25: 12; 16; 1966.

Involvement of a severely mentally retarded, mongoloid child in play activity over a period of 20 months.

32. CLARK, William, Jr., Annie Bennett. "Initiating a Recreation Program in Cottages for the Severely and Profoundly Retarded." Therapeutic Recreational Journal 3: 3: 20-24; 1969.

Recreation activities, materials, facilities and guidelines for setting up the program are discussed.

33. CLELAND, Charles, Jan Swartz, William Chasey. "The Role of Play, Games, and Toys in Recreation Programming for the Moderately and Profoundly Retarded." Therapeutic Recreation Journal 5: 4: 152-155, 188; 1971.

Article details teaching approaches for recreation program.

34. CORRADO, Joseph and James Reed. *Play With a Difference.* New York, New York: The Play Schools Association Inc. (120 West 57th Street), n.d.

Training program at Letchworth Village, a New York State school for the retarded to determine the extent to which the potential of profoundly handicapped children and adult residents might be developed through supervised play.

35. CORTAZZO, Arnold. *Activity Centers for Retarded Adults.* A publication of the President's Committee on Mental Retardation. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, June 1972. Publication No. (05) 73-43. 70¢.

Information on administration and organization of activity centers (facilities where mentally retarded adults participate in organized, personally meaningful, programmed activities for optional adjustment to family and community).

36. CRATTY, Bryant J. *Developmental Sequences of Perceptual-Motor Tasks, Movement Activities for Neurologically Handicapped and Retarded Children and Youth.* Freeport, New York: Educational Activities, Inc. (P.O. Box 392), 1967. $2.95.

Intended for special education and physical education teachers, the handbook presents selected developmental sequences of activities

based on analysis of perceptual motor characteristics of groups of retarded and neurologically handicapped children: trainable retarded, educable retarded, mongoloids, and neurologically handicapped. Teaching guidelines are outlined for evaluation and graded development: body image, balance, locomotion, agility, strength and endurance plus flexibility, catching and throwing balls, manual abilities, and moving and thinking.

37. _____. *Learning and Playing.* Freeport, New York: Educational Activities, Inc. (P.O. Box 392), n.d.

This card file of fifty vigorous activities for the atypical child is an invaluable source of help to the person working with the retarded. Each game card contains the methods and modification of the activity as well as suggestion of who may participate with reasonable success.

38. _____. *Motor Activity and the Education of Retardates.* Philadelphia: Lea & Febiger, 1969. $8.75.

Motor activity combined with other components of the education of the retarded, including speech, vocational training, and social skills. Motor activity may improve retardate's total education by arousing and/or calming him; improving self-control and attention; increasing hand-eye coordination, motivation, self-concept, aspiration level, and choice-making ability; and providing rhythmic skills and activities to enhance mathematics, spelling, speech, and writing.

39. DROWATZKY, John N. *Physical Education for the Mentally Retarded.* Philadelphia: Lea & Febiger, 1971.

Theoretical framework for selecting activities integrated with presentation of methods. Theoretical orientation: nature and causes of mental retardation, fitness and motor characteristics of the retarded, the learning process, and planning physical education programs for retarded children. Activities and techniques: physical fitness, basic movement skills, and perceptual-motor skills. Low organized games, lead-up activities, and sports and recreational skills. Chapters deal with teaching aids, special equipment and resources.

40. FAIT, Hollis F., editor. *Curriculum Guide for Teaching Physical Education to the Profoundly and Severely Retarded.* Mansfield Depot, Connecticut: Mansfield Training School (Department of Physical Education), 1969.

Describes methods and techniques, objectives, and core activities. Also considered supplementary activities for the hyperactive

and emotionally disturbed; suggestions for the teacher; and evaluation, including records, motor skills tests, and behavior rating scales.

41. FREEMAN, B. L. and Jean Mundy. *Habilitative Recreation for the Mentally Retarded.* Birmingham, Alabama: Center for Developmental and Learning Disorders (University of Alabama in Birmingham, 1720 Seventh Avenue, South), 1971.

    Philosophy of habilitative recreation and prerequisite skills for developing programs. Habilitative recreation: 1) based on evaluation; 2) goal oriented; and 3) sequential in nature.

42. GEDDES, Dolores. *Physical Activities for Individuals With Handicapping Conditions.* St. Louis, Missouri: C.V. Mosby Company (3301 Washington Boulevard), 1970. $4.95

    This book is designed to provide practical information for modifying physical activities for individuals with handicapping conditions such as: Subaverage intellectual functioning at mild-to-moderate and severe/profound degrees, learning problems, visual problems, hearing problems, orthopedic problems, and emotional problems.

    Program activities are suggested based upon individual social-emotional, mental and physical functional levels of each participant which is a noncategorical approach to physical education and recreation for individuals with various handicapping conditions.

    Information given on examples of behaviors which might be developed in program participants who have handicapping conditions, developmental sequences of activities, general and specific activity modification suggestions, behaviors to be developed in adapted physical education/recreation or in-service training programs, references for evaluative criteria, equipment and supplies, national resource information, audio-visual aids and operational definitions.

43. GINGLEND, David R. *The Expressive Arts for the Mentally Retarded.* Arlington, Texas: National Association for Retarded Children, 1967. $2.00.

    Purpose: to stimulate thinking about the role of expressive arts in educating and training the mentally retarded, and in broadening their interests and activities during leisure time. Areas include (art, arts and crafts, communication and language, dance, dramatics, and music).

44. GINGLEND, David R. and Winifred Stiles. *Music Activities for Retarded Children: A Handbook for Teachers and Parents.* Nashville, Tennessee: Abingdon Press, 1965.

Importance of music in the learning of mentally retarded. Song material and simple folk dances, along with practical hints. Instructions for using the record player, autoharp, and percussion instruments. Sources given for printed materials and instruments.

45. GROVE, Frances A. "Answers to Some Questions About Camping For Retarded." ICRH Newsletter 3: 2: 1-3; 1967. (Out of Print).

Moderately and severely retarded children and adults, even wheelchair mentally retarded persons went to day camp with normal children and were included in the activities with little difficulty. Patients showed adaptability and performance beyond what would generally be expected.

46. GROVE, Frances A. and Charles V. Keeran. "Teaching the Severely Retarded to Use Playground Equipment." *Best of Challenge.* Washington, D.C.: American Association for Health, Physical Education and Recreation, 162-164; 1971.

Few profoundly or severely retarded residents of institutions know how to use playground equipment. Pacific State Hospital began a program aimed at encouraging the residents to use playground equipment and teaching them to play effectively. Merry-go-rounds, swings, climbers, tunnels, and slides were used to provide the patients with a variety of activities and to foster development of a range of skills.

47. HACKETT, Layne C. *Movement Exploration and Games for the Mentally Retarded.* Palo Alto, California: Peek Publications (4067 Transport Street), 1970.

Information for physical educators, special educators, classroom teachers, recreation specialists, volunteers, and parents. Activities, methods, approaches, procedures, patterns, and concepts--in movement exploration for the mentally retarded.

Chapters deal with body image, space awareness, self-confidence, visual focusing, balance, and hand-eye coordination.

48. HILLMAN, William A., Jr. "Recreation for the Severely and Profoundly Retarded." Programing for the Mentally Retarded. Report of a National Conference, October 31 - November 2, 1966. Washington, D.C.: AAHPER, 95-97; 1968.

Recreation programs for the profoundly and severely mentally retarded in institutions need to be staffed by full-time recreation personnel, to provide reduction in the resident-staff ratio, to explore and experiment with different kinds of recreation activities, and to be evaluated to determine whether or not they are well-balanced and meet the psychological and social needs of the residents.

49. HILLMAN, William A. "Therapeutic Recreation with the Profoundly Retarded." Recreation for the Ill and Handicapped 10: 2: 3; 1966.

Outline of therapeutic recreation program for severely and profoundly retarded children at the State Colony, Woodbine, New Jersey. Involved were 300 male residents having a median MA of 1 to 3 years and a median IQ of 12. Therapy was based on small group activity and designed with aims of 1) reducing illness and confinement to bed, 2) lessening aggressive behavior, 3) improving the sleeping habits, and 4) developing more easily controlled behavior.

50. HOLLANDER, H. Cornelia. *Creative Opportunities for the Retarded Child at Home and in School.* Garden City, New York: Doubleday & Company, 1971. $10.00.

Six booklets--*Getting Started, Finger Painting and Print Making, Drawing and Painting, Clay and Other Dimensional Media, Stitchery,* and *Woodworking and Odds and Ends*--were written for parents, teachers and volunteers, for nurses, and for vocational workers. Specific areas include: finger painting, pulling a print, butterfly prints, gadget printing, vegetable prints, stencil rubbings, printing for a prepared surface, silk screen printing, linoleum block prints, scribbling, crayon processes, felt-tip markers, colored chalk drawings, melted crayon drawings, ink drawings, painting, cut-tear-paste pictures, puppets, paper mache, collage, mosaic, wire sculpture, seed pictures, tongue depressor projects, and holiday decorations.

51. INFORMATION and Research Utilization Center in Physical Education and Recreation for the Handicapped. *A Catalog of Federal Assistance Relating to Recreation and Physical Education for the Handicapped.* Washington, D.C.: American Association for Health, Physical Education and Recreation, July 1973.

Description of 39 programs providing federal financial support (as of June 1973) for research, training, and technical assistance in physical education and/or recreation for impaired, disabled, and handicapped persons. Provides information on each program regarding specific types of assistance provided, purposes for which assistance is available, who can apply, how to apply, and federal offices to contact.

52. _____. *Guide for Financial Assistance and Program Support for Activities in Physical Education and Recreation for Impaired, Disabled, and Handicapped Participants: Innovation and Success Stories.* Washington, D.C.: American Association for Health, Physical Education and Recreation, May 1973.

In addition to federal or state support funds, local communities have other resources for obtaining complete or supplementary financial assistance for facilities, equipment, supplies, manpower, and programs in physical education, recreation, camping, outdoor education, sports, and athletics for individuals with handicapping conditions. Community resources are available to give such financial aid; however, the person responsible for obtaining these monies must discover these resources and decide which approach to use in soliciting funds. This publication is designed to help in fund-raising by describing effective methods and types of groups which have provided support.

53. _____. *Guide for Homemade Innovative Play Equipment for Activities in Physical Education and Recreation for Impaired, Disabled, and Handicapped Participants.* Washington, D.C.: American Association for Health, Physical Education and Recreation, May 1973.

Homemade and inexpensive equipment, supplies, and adapted devices are described for use in physical education, recreation, camping, playground, and related programs for individuals with handicapping conditions. Apparatus is described for use with program participants who were in large groups, had different interests, exhibited diverse abilities or who were in programs with limited budgets. Sections on detailed progression of balance activities (for performance on equipment), resistance activities and equipment which may be made.

54. _____. *Periodicals Dealing With Physical Education and Recreation for Handicapped Persons.* Washington, D.C.: American Association for Health, Physical Education and Recreation, August 1973.

A list of periodicals and newsletters which contain information on physical education and recreation for individuals with handicapping conditions. The chart presents 89 names of publications followed by types of handicapping condition dealt with and names of data retrieval systems which index the publication.

55. KIMBRELL, Don L., et al. "Institutional Environment Developed for Training Severely and Profoundly Retarded." Mental Retardation 5: 1: 34-37; February 1967.

Special problems of training and caring for 20 institutionalized severely mentally retarded females (ages 6 to 18) with agressive and

destructive behavior are discussed. Special toys, developmental equipment, and training equipment to aid in establishing self-feeding and toilet habits and to develop coordination are described: heavy-duty metal frame swings with wooden seats and an adjustable bar, large metal sandboxes, a simplified jungle gym, mental swimming pool, strengthened tricycles and bicycles, rocking swans; tumble tubs, staircases with deep and shallow steps, chalk and blackboards, buttoning and shoe stringing apparatus; special utensils, recessed trays, and special toilet seats. Destructible materials, environmental changes including a thermostatically controlled climate, ropes for walking groups, and articles providing tactile, visual, auditory, and kinesthetic stimulation are also considered.

56. KLAPPHOLZ, Lowell, editor. *Physical Education for the Physically Handicapped and Mentally Retarded.* New London, Connecticut: the Author (Box 8). n.d.

Series of articles compiled concerning physical education for the physically handicapped and mentally retarded; different approaches utilized by various personnel and schools in the nation are discussed.

57. KUIPER, H. "Sensation and Activity." Journal of Mental Subnormality 13: 25: 64-66; 1967.

Play activities can be used to stimulate development in SMR children. Unlike the play of normal children, the play of the SMR child is very simple, repetitious, and stereotyped.

58. LETT, Mark and Billy Turnbow. *Travis State School Recreation Handbook.* Austin, Texas: Travis State School (Texas Department of Mental Health and Mental Retardation), 1973.

Guide for physical education and recreation therapists: objectives, safety precautions, equipment needed and activities. Part/whole method for presenting and evaluating skills.

59. LINDSAY, Leidge. *Art is for All.* New York, New York: Taplinger Publishing Company (29 East Tenth Street), 1967. $5.50.

This book, subtitled "Arts and Crafts for Less Able Children", concerns especially the requirements of the educationally retarded and presents a wealth of original and exciting arts and crafts projects.

60. LINFORD, Anthony G. and Claudine Y. Jeanrenaud. *Systematic Instruction for Retarded Children: The Illinois Program--Experimental Edition. Part IV: Motor Performance and Recreation Instruction.* Urbana, Illinois: Illinois University (Institute for Research on Exceptional Children), 1970.

Guidelines on basic recreation movements, rhythm in music, handicrafts, and miscellaneous activities. Guidelines employ principles

of behavior change and direct instruction. Programed instruction lists terminal behaviors required from the child when the final task request is mastered. The justification of each skill selected, prerequisite skills, necessary instructional materials and advanced skills are explained. Evaluation criteria for the model lesson plans are provided. Lesson plans presented for 18 basic movements that involve one or a combination of the following gross motor movements: balance, object projection, object reception, body projection, and body reception. The rhythm section consists of plans on four attributes thought to be necessary for musical rhythm readiness: stop and go, loud and soft, fast and slow, and combining dimensions of loudness and fastness. The arts and crafts section includes model lesson plans on modeling with clay, drawing, pasting with glue, painting, and cutting with scissors.

61. _____. "A Systematic Language Structure for Teaching Recreative Skills to the Mentally Retarded." Therapeutic Recreation Journal 3: 1: 8-11; First Quarter, 1969.

The limited vocabulary of many retarded children is considered from the standpoint of the recreation therapist. The importance of using language which the child can understand is discussed with an example of how to teach specific skills through a structured sequence.

62. LITCHFIELD, Robert. "Ralph Finds a Home." Mental Retardation (Canadian Association for Retarded Children), 17: 2: 11-13; 1967.

Tranquille School (Tranquille, British Columbia) enacted three ward-inspired projects -- planting a garden with the help of 83 severely retarded males, building a park near the school, and raising a steer for a spring barbecue. These staff directed activities proved to be beneficial for both the students and the staff.

63. LOEWENDAHL. Evelyn. *Exercises for the Mentally Retarded: How To Develop Physical Functions in the Growing Child.* Swarthmore, Pennsylvania: Croft Inc. (100 Park Avenue), 1967.

Principles in interpreting physical levels of motor growth and development in the mentally retarded child are described. Developmental levels show skeletal and nerve muscle growth desirable for each year of growth from three to sixteen years, and describes exercises and physical activities recommended.

64. McNEICE, Willian C. and Kenneth R. Benson. *Crafts for the Retarded: Through Their Hands They Shall Learn.* Bloomington, Illinois: McKnight and McKnight Publishing Co., 1964.

Practical, sequential, and creative arts and crafts projects for the retarded. Projects are coded to indicate the use of small or large muscles, the degree of difficulty, and the required time for completion.

65. MITCHELL, Anna C., and Vincent Smeriglio. "Growth in Social Competence in Institutionalized Mentally Retarded Children." American Journal of Mental Deficiency 74: 666-673; 1970.

Two groups of 25 moderately and severely retarded children were evaluated for social competence development during their first years of institutionalization. Results suggest that young moderately and severely retarded children require formal teaching in addition to routine attendant care. Activity therapy was the added variant.

66. NATIONAL Therapeutic Recreation Society. *Therapeutic Recreation Service and Mental Retardation.* Therapeutic Recreation Journal 3: 3: Third Quarter, 1969. Washington, D.C.: The Society.

Special issue consolidates recent materials and presents articles which deal with service at international, federal, state, institutional, and local levels. Professional preparation, sources of materials, research, activity areas, listings of films, books, journals, and other reference materials are also included.

67. NESS, Richard A., et al. *Toward Better Movement: A Manual of Movement Activities for the Lower Level Mental Retardate.* Denton, Texas: Denton State School for the Mentally Retarded, 1972.

Background methods and media for comprehensive physical activity program for lower level mentally retarded persons. Activities, suggestions, and hints: developing and using learning packages, locomotor/non-locomotor/manipulative basic movements, low organized activities, trampoline activities, and tumbling and stunts. Charts outline sequences and progressions.

68. PENNINGTON, Ward R. and Emily J. Brazeal. "Partlow in Alabama Emphasizing Fitness." ICRH Newsletter 2: 8: 1; 4; 1967. (Out of Print).

Physical education program involving 1,500 mentally retarded persons in second year at Partlow State School (Alabama). Social awareness and etiquette have improved, sex problems have decreased, and emotional and academic improvements have resulted. Severely mentally retarded and

trainable mentally retarded attend half-hour classes, while educable mentally retarded have one-hour sessions.

69. PENNSYLVANIA Department of Education. *Challenge to Change: Program Guidelines in Physical Education for the Mentally Retarded.* Harrisburg, Pennsylvania: the Department (Box 911), September 1970.

Overview of mentally retarded children and effects that planned physical education and recreation programs may have upon them. Motor development, physical evaluation, progressive physical education, and methodology are dealt with.

70. POMEROY, Janet M. "Recreation and Day Care for the Severely Retarded in a Community Setting." Programing for the Mentally Retarded. Report of a National Conference, October 31 - November 2, 1966. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 32-37; 1968.

Majority of 415 enrolled individuals aged 2 to 70 years who are engaged in 22 different programs conducted by the Recreation Center for the Handicapped, Inc. in San Francisco, California are retarded; the degree of retardation ranging from mild to profound. Day care program provides opportunities for SMR individuals to participate in the fun and enjoyment that comes from playing with other children.

71. RATHBONE, Josephine L. and Carol Lucas. *Recreation in Total Rehabilitation.* Springfield, Illinois: Charles C. Thomas, Publisher, 1959.

72. ROBBINS, Ferris. *Educational Rhythmics for Mentally and Physically Retarded.* New York, New York: Association Press (291 Broadway), n.d. $7.95.

Presents foundational rhythmic and movement skills which are correlated to the education program of participants. Excellent detailed progression of activities which are well illustrated and easily understood.

73. ROBBINS, Ferris and Jennet Robbins. *Educational Rhythmics for Mentally Handicapped Children.* New York, New York: Horizon Press, 1965.

Fundamental rhythms with the retarded. Program utilizes music, words, pictures, and movements to achieve total child development. Exercises are given for the severely retarded, intermediate, and more advanced.

74. _____. *Supplement to Educational Rhythmics for Mentally and Physically Handicapped Children.* Zurich, Switzerland: Ra-Verlag, Rapperswil, 1966.

This supplement is a continuation of original book *Educational Rhythmics for Mentally Handicapped Children.* Motor action and coordinated movement, accompanied by music, the spoken word, vision, touch, and the natural sense of imitation, are discussed.

75. SISTEK, Harriet R. "An Experiment in Recreation with Profoundly Retarded." *Best of Challenge.* Washington, D.C.: American Association for Health, Physical Education, and Recreation, 147-148; 1971.

A special program was developed by the Newark State School staff (New York) for twelve boys who lacked adequate self-care skills and who were unresponsive to their environment. Recreational activities on an individual and group basis were offered for fifteen months on an experimental basis. No formal evaluative criteria were used but the staff observed positive changes in the boys' responses to their environment.

76. SOUTHERN Regional Education Board. *Recreation for the Mentally Retarded: A Handbook for Ward Personnel.* Atlanta, Georgia: the Board (130 Sixth Street, N.W.), 1964.

Sections deal with philosophy and theory of recreation for the mentally retarded, role of the attendant in providing recreation, and activities for the retarded. Descriptions of active games, music and rhythms, quiet and table games, arts and crafts, and homemade games and equipment.

77. STEVENS, Ardis, Donald F. Bridgeman, et al. *Fun Is Therapeutic.* Springfield, Illinois: Charles C. Thomas, Publisher, 1972.

Recreation activities in nursing homes, hospitals, institutions, extended care facilities for mentally retarded, mentally ill, aged, physically handicapped persons.

78. TEXAS Department of Mental Health and Mental Retardation. *Operation Sports Health and Recreation Program.* (Report of "A Demonstration Project to Foster Physical Education-Recreation Programs for the Mentally Retarded. SRS Grant No. 56-P-70782-6.) Austin, Texas: the Department, 1971.

Curriculum described which is used at Beaumont and Amarillo State Centers for Human Development: methods, basic movement and physical activities for the retarded.

79. _____. *Recreation and Physical Education Guide.* Austin, Texas: Texas Department of Mental Health and Mental Retardation, February 1973.

Guide for physical education and recreation for the mentally retarded in Texas' State Schools. Sections include general inforation, methodology, and ideas for presenting activities and physical activities.

80. VINELAND State School. *A Suggested Guide for Recreation for the Severely Retarded.* Vineland, New Jersey: Vineland State School, 1961.

81. VOSS, Donald G. *Physical Education Curriculum for the Mentally Retarded.* Madison, Wisconsin: Wisconsin Department of Public Instruction (126 Langdon Street), September 1971. $1.50.

Curriculum guide developed under the leadership of Manitowoc County (Wisconsin) Handicapped Children's Education Board Special Education staff and consultants. Part I: discussion of physical education, philosophy and purposes, characteristics of a sound program, and recent trends. Mental retardation and characteristics of the retarded child reviewed. Part II: fundamental movement patterns and motor skills in terms of behavioral objectives, common deviations to watch for, and suggested developmental activities to use in developing patterns or skills at each level. Part III: practical games, sports, and recreational activities.

82. WEISER, Ron (editor). *Swimming Manual-Pacific State Hospital.* Pomona, California: Pacific State Hospital, Central Services Department, (Box 100), n.d.

Aquatic therapy manual designed for hospital employees and volunteers as a guide to teaching retarded patients to swim.

83. WOOD, Tom. "Lapeer Recreation Program Geared to Severely Retarded." ICRH Newsletter 3: 20: 1-4; 1969. (Out of Print).

Recreation and socialization, field trips, and fun for SMR are stressed at Lapeer State Home and Training School (Michigan). The recreation program provides year-round activity for 3,347 patients.

84. WUNDERLICH, Ray C. *Kids, Brains, and Learning.* St. Petersburg, Florida: Johnny Reads, Inc. (Box 12834), 1970.

The author, a pediatrician, applies his medical know-how, skills, and insights to the learning of children and to their learning pro-

blems. Topics include educating the retarded, increasing potential, toys and activities, systems of treatment, sensory-motor-perceptual training and patterning therapy.

D. EQUIPMENT

1. AITKEN, Margaret H. *Play Environment for Children: Play Space, Improvised Equipment, and Facilities.* Bellingham, Washington: Educational Designs and Consultants (3259 North Shore Road), 1972.

   This manual discusses the child and play, indoor and outdoor play areas, equipment and supplies for elementary physical education, how to make equipment and sources for equipment, supplies and teaching aids.

2. BITTNER, Linda, et. al. *Innovative Playground Equipment for Elementary Schools.* Ocala, Florida: The Physical Education Competence Curriculum Center, 1971.

   Includes photographs of 17 pieces of equipment, a statement of purpose or function, suggested activities, and a detailed drawing and specifications.

3. CHRISTIAN, Quentin A. *The Beanbag Curriculum: A Homemade Approach to Physical Activity for Children.* Wolfe City, Texas: The University Press, 1973.

   Includes hundreds of activity ideas centered around the use of homemade equipment such as broomsticks, hoops, beanbags, streamers, flash cards, rug squares, ropes, tires and 15 other items. Each section includes construction methods, activities, photographs, and illustrations.

4. CORBIN, Charles B. *Inexpensive Equipment for Games, Play and Physical Activity.* Dubuque, Iowa: Wm. C. Brown Company Publishers, 1973.

   Provides illustrations and construction, needed materials, useful activities and teaching suggestions of inexpensive equipment for physical education and recreation.

5. EDUCATIONAL Facilities Laboratories. *Found Spaces and Equipment for Children's Centers.* New York, New York: Educational Facilities Laboratories (477 Madison Avenue), 1972. $2.00.

   Compilation of resourceful, creative ways which can be used to transform inexpensive and overlooked spaces into places and things for learn-

ing. Pictures illustrate uses of ideas in a variety of indoor and outdoor spaces. A few detailed drawings of area layouts show space relationships.

6. FREDERICK, A. Bruce. *212 Ideas for Making Low-Cost Physical Education Equipment.* Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1963.

   Provides information and illustrative material about homemade equipment for use in: 1) aquatics, 2) games of low organization, 3) gymnastics, 4) individual and dual sports, 5) rhythmics, and 6) team sports. Most equipment described can be built inexpensively, with simple tools, from easily obtained materials, and without special industrial arts training.

7. GORDON, Ronnie. *The Design of a Pre-School Therapeutic Playground: An Outdoor "Learning Laboratory."* Rehabilitation Monograph 47. New York, New York: Institute of Rehabilitation Medicine, New York University Medical Center, 1972.

   Description and photography of the Jessie Stanton Developmental Playground for pre-school handicapped children facility and the equipment that is employed for the participants.

8. ISRD Committee on Technical Aids and International Cerebral Palsy Society. *Aids for Children: Technical Aids for Physically Handicapped Children.* Sweden: ICTA Information Centre (Fack, S-161 03 Bromma 3), April 1972. $2.00.

   A compilation of equipment and aids in the form of an international catalogue developed in collaberation with International Cerebral Palsy Society and the Swedish government. A well illustrated manual for aids for physicotherapy, occupational therapy, locomotion, and school aids.

9. INFORMATION and Research Utilization Center in Physical Education and Recreation for the Handicapped. *Guide for Homemade Innovative Play Equipment for Activities in Physical Education and Recreation for Impaired, Disabled, and Handicapped Participants.* Washington, D.C.: American Association for Health, Physical Education and Recreation, May 1973.

   Homemade and inexpensive equipment, supplies, and adapted devices are described for use in physical education and recreation to fulfill the need for such apparatus for use with participants who were in large groups, had different interests, exhibited diverse abilities or who were in programs with limited budgets. Materials are adaptable

to, applicable for, and usable by groups and individuals of all ages, descriptions, and functional levels. Users are expected to improvise, modify and adapt equipment to meet needs, interests, and abilities of participants. Following sections on Introduction, Key to Abbreviations and Terminology, Detailed Progression of Balance Activities (for performance on equipment), and Resistance Activities (using homemade equipment), the major part of the guide deals with equipment which may be made. This section gives line drawings of equipment which show proper dimensions for construction, representative examples of activities which might be used in sequential progression with the equipment, purpose of activities, helpful hints on improving or modifying performances, safety considerations, and materials needed for construction. The appendices include suggestions for additional equipment and a classification index for finding devices and equipment in the guide according to purpose.

10. MILLER, Peggy L. *Creative Outdoor Play Areas.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972.

    Contains pictorial sketches and photographs of play areas and individual pieces of equipment along with suggestions on what can be done, why it is essential, and how to achieve wholesome, creative play areas for children.

11. NATHEN, C., A. Slominski and P. Griswald. *Please Help Us Help Ourselves: Inexpensive Adapted Equipment for the Handicapped.* Indianapolis, Indiana: Indiana University Medical Center (Occupational Therapy Department), 1970.

12. PLAYGROUND Corporation of America. *Helping Rehabilitate the Handicapped Child Through Successful Physical Play.* Long Island, New York: the Corporation, 1969.

    Reports from a news symposium in New York City in 1969 to introduce new concepts for helping rehabilitate handicapped through successful play in an environment called "Playscape." Appropriate for blind, mentally retarded, emotionally disturbed, deaf or multiple handicapped.

13. ROBINAULT, Isabel P. editor. *Functional Aids for the Multiply Handicapped.* Hagerstown, Maryland: Harper & Row, Publishers, Inc. (Medical Department, 2350 Virginia Avenue), 1973. $10.00.

    A well illustrated book giving descriptions, sources and information on aids for 1) transfer, travel and mobility, 2) personal care, 3) communications and learning and 4) recreation.

14. Van der Smissen, Betty and Helen Knierim. *Fitness and Fun Through Recreational Sports and Games.* Minneapolis, Minnesota: Burgess Publishing Company, 1964.

    Rules and directions for conducting various recreational sports and games are included along with sketches and plans for constructing equipment needed in the listed activities.

E. EVALUATION

1. BOWERS, L. *A Program of Developmental Motor Activities for Retarded Children.* Unpublished mineographed material. Tampa, Florida: University of South Florida (Department of Health and Physical Education), n.d. pp. 9-10.

   This program contains measures of neurological fitness and a developmental program (including evaluative approaches) involving movement exploration, balance, trampoline, and perceptual activities.

2. BROWN, Gerri A., Barbara L. Kuelling and Janet M. Dickson. "Objective Measurement of Motor Skill Acquisition: Clinical Reports." Physical Therapy 53: 8: 864-866; August 1973.

   Description of a motor development checklist--functional independent ambulation which is employed by physical therapists at State Home and Training School, Wheatridge, Colorado. The scale is used with residents who are primarily profoundly or severely retarded. Overall programs include 1) functional head control, 2) rolling, 3) independent sitting, 4) crawling, 5) kneel-standing/kneel-walking, 6) functional independent ambulation and 7) independent wheelchair function.

3. CORBIN, Charles B. *A Textbook of Motor Development.* Dubuque, Iowa: William C. Brown Company Publishers, 1973.

   Contents describe characteristic motor development patterns of children, reasons as to why children develop as they do and speculation regarding potential motor performance of children. Knowledge of motor skill progression and use of stated evaluative criteria will assist the reader to determine motor development skills of program participants.

4. CRATTY, Bryant J. *Perceptual and Motor Development in Infants and Children.* New York, New York: The MacMillan Co. (866 Third Avenue), 1970.

   Discussion of research findings with relationship to perceptual and motor developmental stages in infants and children. Information is given for assistance in analyzing sequential skills and evaluating each individual's functional levels.

5. EDUCATIONAL Test Bureau. *Oseretsky Tests of Motor Proficiency.* Minneapolis, Minnesota: Educational Publishers, Inc. n.d.

This is a maturation scale of motor proficiency which resembles the Binet Intelligence Test in construction. It gives a motor age for children 4 to 16 years of age and distinguishes four grades of motor proficiency. Items are scored on a pass-fail basis and are divided into six categories: static coordination, dynamic manual coordination, general dynamic coordination, speed, simultaneous movement, and synkinesia. Several revisions have been made of this test by American investigators: R. L. Berk, *A Comparison of Performance of Subnormal, Normal, and Gifted Children on the Oseretsky Tests of Motor Proficiency.* Doctoral dissertation. Boston, Massachusetts: Boston University School of Education, 1957. R. H. Cassel, "The Vineland Adaptation of the Oseretsky Tests," Training School Bulletin 46: 3; 4; 1949. (Monograph supplement, series number 1); William Sloan, "The Lincoln-Oseretsky Motor Development Scale," Genetic Psychology Monographs 51: 183-252; 1955.

6. ESPENCHADE, Anna S. and Helen M. Eckert. *Motor Development.* Columbus, Ohio: Charles E. Merrill Publishing Co., 1967.

Stages of motor development are described from the prenatal stage to old age. The descriptions of progressive stages, along with the evaluative criteria referred to at appropriate levels, provide adequate information for the practitioner to determine functioning levels of participants. Heredity, prenatal maternal influences and sensory-motor differentiation and integration are discussed.

7. FRANKENBURG, William K. and Josiah B. Dodds. *Denver Developmental Screening Test.* Denver, Colorado: University of Colorado Medical Center, 1966.

This test was devised and standardized to provide a simple, clinically useful tool to assist in the early detection of children with serious developmental delays. It can be used by people who have had no training in psychological testing; it is simple to administer and interpret. The DDST evaluates these functions: gross motor, fine motor--adaptive (the use of hands, and as the child grows older, his ability to solve nonverbal problems), language (the ability to hear and talk), personal-social (the ability to perform tasks of self-care and to relate to others). The test is not designed to give a developmental or mental age, nor a development or intelligence quotient; it is to be used to call attention to the possibility of developmental delays so that appropriate diagnostic studies may be pursued.

8. FREDERICKS, H. D. Bud, Victor L. Baldwin, Philip Doughty, and L. James Walter. *The Teaching Research Motor-Development Scale for Moderately and Severely Retarded Children.* Springfield, Illinois: Charles C. Thomas, Publisher (301-327 East Lawrence Avenue), 1972. $7.00.

   Scale is designed to measure motor proficiency in much the same way as the Lincoln-Oseretsky Motor Development Scale. Teachers of moderately and severely retarded children can use this scale in either classroom or physical education programs. Scale measures motor proficiency in 17 areas ranging from ambulation ability to fine finger dexterity. No norms are assigned; performance measured against future or past performances or against some arbitrary standards which examiners or teachers prescribe.

9. GODFREY, Barbara B. and Newell C. Kephart. *Movement Patterns and Motor Education.* New York, New York: Appleton-Century-Crofts (Division of Meredith Corporation, 440 Park Avenue, South), 1969.

   This book contains information on motor activity, movement patterns and a Movement Pattern Profile. The profile provides checklists that are designed to evaluate the major basic human movement patterns and are intended to give a status assessment of patterns fundamental to human performance which form the foundation of human movement. Walking, running, jumping, hopping, skipping, sliding, crawling, climbing, rolling, standing, throwing, catching, hitting, kicking, pushing, and pulling are movements included. These checklists are suitable for use by either trained or untrained personnel.

10. KOPP, Claire B. editor. *Readings in Early Development for Occupational and Physical Therapy Students.* Springfield, Illinois: C.C. Thomas, 1971.

    This book describes the development of infants and children and discusses how interaction is made with the environment. The readings are selected on the basis of recent studies and theories. The level of information is aimed toward occupational and physical therapy students but can also be used by physical education and recreation personnel. Progressive stages in neurophysiologic, sensory, motor, perceptual, cognitive, language, body image, laterality, emotional, and social development.

11. LANDSMAN, M. and H. Dillard. *Evanston Early Identification Scale.* Chicago, Illinois: Follet Educational Corporation (1010 W. Washington Blvd.), n.d.

    This test identifies children who can be expected to have learning disabilities. Items include body awareness, social-emotional development and ability of child to draw a figure of a person.

12. LOEWENDAHL, Evelyn. *Exercises for the Mentally Retarded: How To Develop Physical Functions in the Growing Child.* Swarthmore, Pennsylvania: Croft Inc. (100 Park Avenue), 1967.

Principles in interpreting physical levels of motor growth and development in the mentally retarded child are described. Developmental levels show skeletal and nerve muscle growth desirable for each year of growth from three to sixteen years, and describes exercises and physical activities recommended.

13. McGAHAN, F. E., and C. McGahan. *Early Detection Inventory (EDI).* Chicago, Illinois: Follet Educational Corporation, 1967.

This inventory is designed for preschool children in transitional and ungraded primary classes. Items include 1) readiness for school, 2) social and emotional development, 3) motor performance and 4) personal history. Comments: Identifies children with potential problems, offers guidelines for curriculum planning and suggests use of other sources for follow-up procedures.

14. MUNDY, J. *A Special Diagnostic Battery of Recreative Functioning for the Trainable Mentally Retarded.* Tallahassee, Florida: Florida State University (Department of Recreation), 1966.

This instrument measures skills, abilities, and competencies needed by an individual if he is to participate successfully in different recreational activities. By looking at an individual's profile, the recreation leader can guide the participant into activities consistent with his level, degree, and kind of ability so he will have a greater chance for immediate success and achievement.

15. ORPET, R. E. and T. L. Heustis. *Move-Grow-Learn Movement Skills Survey.* Chicago, Illinois: Follet Educational Corporation, 1971.

This list was developed to assist classroom teachers, movement education supervisors, school psychologists, and other professional school personnel in evaluating selected aspects of a child's motor development. It is intended for use with the Frostig-Maslow Move-Grow-Learn program and with Movement Education: Theory and Practice. Eight broad areas of sensory-motor and movement skills are included: 1) coordination and rhythm, 2) agility, 3) flexibility, 4) strength, 5) speed, 6) balance, 7) endurance (only children eight years old or older should be rated on endurance), and 8) body awareness. This is not a standardized psychometric instrument in which developmental norms are provided for each age level. The assessment is based upon the examiner's observations of the child in classroom, playground, and gymnasium activities.

16. REPORTING Service for Exceptional Children. *T.M.R. Performance Profile.* Ridgefield, New Jersey: Reporting Service for Exceptional Children (563 Westview Avenue, 07657), n.d.

This evaluation scale, based upon observation, presents graphically the current status of an individual child, to help the teacher or leader

evaluate more readily existing needs, to plan for individual growth, and to record change and development. The six major areas most frequently referred to in curriculum guides for the severely and moderately retarded are used as the basis for the profile (social behavior, self-care, communication, basic knowledge, practical skills, and body usage). The section on body usage is subdivided into coordination, health habits, fitness and eye-hand coordination. Various indexes make it possible to evaluate one major area against another and to assess progress in the various areas from year to year.

17. WABASH Center for the Mentally Retarded, Inc. *Guide To -- Early Developmental Training.* Indianapolis, Indiana: Indiana State Department of Public Instruction, 1972.

A training guide for children who, because of age or handicapping condition, are functioning on early developmental levels. Activities are designed for children from infancy through six years of age. Individualized instruction based upon functional levels ascertained by specific evaluative criteria is presented: perceptual-motor, cognitive development, language development, self-care and number concepts.

18. WEBB, Ruth C. "Sensory-Motor Training of the Profoundly Retarded." American Journal of Mental Deficiency 74: 283-295; 1969.

Description of sensory-motor techniques and their empirical rationale designed for profoundly retarded residents of Glenwood State Hospital School, Glenwood, Iowa. Four areas of underdeveloped behavior are listed: 1) level of awareness, 2) movement, 3) manipulation of environment, and 4) posture and locomotion. The article includes the Awareness, Movement, Manipulation of Environment, Posture and Locomotion (AMMP) Index which is used for evaluating behavioral levels.

19. WICKSTROM, Ralph L. *Fundamental Motor Patterns.* Philadelphia, Pennsylvania: Lea and Febiger, 1970.

Detailed descriptions of basic motor skill patterns which are progressively refined to specific sport skill movement patterns at a later chronological age. Practitioners may determine skill levels of program participants by reference to the sequential skill progression stages.

C. PHYSICAL AND RECREATIONAL ACTIVITY PROGRAMS
ADDENDUM

1. AMERICAN Association for Health, Physical Education, and Recreation. *The Best of Challenge II.* Washington, D.C.: the Association, 1974.

   Compilation of articles from Challenge, AAHPER's newsletter for special educators, physical educators, recreation and related personnel. Designed as a basic or supplementary text for college courses, and as a reference for workshops, clinics, seminars, institutes, classes, and similar in-service and pre-service programs.

2. BRADTKE, Louise M., William J. Kirkpatrick, Jr., and Katherine P. Rosenblatt. "Intensive Play: A Technique for Building Affective Behaviors in Profoundly Mentally Retarded Children." Education and Training of the Mentally Retarded 7:1: 8-13; February 1972.

   Article discusses value of intensive play in working with profoundly mentally retarded children according to the methods used at the authors' BKR Experimental Project at the Sunland Training Center in Miami, Florida. Adults work with only one child during a 30-minute play session, which is specially planned for that child, using intensive play to develop responses to close body contact and physical stimulation and to break through the typical fearfulness and unresponsiveness of these children.

3. KECK, S. Annette, Constance R. Curry, Gale Salzman, and Carol Arslander. *Day Camping for the Trainable and Severely Mentally Retarded: Guidelines for Establishing Day Camp Programs.* Springfield, Ill.: Division of Mental Retardation, Department of Mental Health (401 South Spring Street), April 1970.

   Prepared by regular and consultant staff of Herman M. Adler Zone Center (Champaign, Illinois) to meet the need of community recreation personnel for a handbook on camping for the trainable and severely mentally retarded. Sections deal with administering a day camp, physical activities, arts and crafts activities, music activities, sample schedules, forms, job descriptions for staff, materials, and a selected bibliography.

4. SCHEER, Ralph M. "Fusion of Social Group Work and Recreation Skills in Providing Service to the Mentally Retarded." Training School Bulletin 65:1: 21-27; 1968.

   This article discusses the leisure revolution and effect that this phenomenon is having on society in general and for the retardate specifically. The question is raised as to whether or not sterile programming is frequently offered the institutionalized retardate instead of needed creative emotional experiences.

5. THOMPSON, Travis and John Grabowski, editors. *Behavior Modification of the Mentally Retarded.* New York City: Oxford University Press, Inc. (200 Madison Avenue), 1972.

This book documents how the Fairbault State Hospital in Minnesota transformed itself from a largely custodial institution to an educational therapeutic environment through the systematic application of behavior modification procedures. Described in detail are: initial ward-wide behavior modification programs for children; special programs for the most seriously retarded and emotionally disturbed adult patients; a token reinforcement system for women, the presentation of which includes a comparative study of behavior modification and drug therapy; and the use of behavior modification procedures in special education classrooms and in occupational and recreational therapy. Because all the patients are profoundly retarded, the programs focus first on developing self-care skills and then on educational, recreational, interactive, and vocational skills, while at the same time controlling and eliminating disruptive and destructive behavior.

6. THERAPEUTIC Recreation Journal. "Special Issue: Therapeutic Recreation Service and Mental Retardation." Therapeutic Recreation Journal 3:3: 1-36; Third Quarter, 1969.

Special issue includes articles in the following areas: therapeutic recreation for the profoundly retarded, improving services, rights of the retarded, federal support of recreation, recreation services in Kansas, and initiating a program in cottages for the severely and profoundly retarded.

7. WOLINSKY, Gloria F. and Nancy Koehler. "A Cooperative Program in Materials Development for Very Young Hospitalized Children." Rehabilitation Literature 34:2: 34-46; February 1973.

Information is given on equipment and materials to be used with infants and toddlers who are confined to cribs during hospitalization away from the home environment. The materials for tactile, visual, auditory and kinesthetic stimulation are designed for children who function at normal and below normal intellectual levels. The crib play materials are suitable for profoundly retarded individuals.

PART THREE

RESOURCE INFORMATION CONTACTS

1. AMERICAN ASSOCIATION FOR MENTAL DEFICIENCY
   5201 Connecticut Avenue, N.W.
   Washington, D.C. 20015

2. THE AMERICAN OCCUPATIONAL THERAPY ASSOCIATION, INC.
   6000 Executive Boulevard, Suite 200
   Rockville, Maryland 20852

3. AMERICAN PHYSICAL THERAPY ASSOCIATION
   1156-15th Street, N.W.
   Washington, D.C. 20005

4. ASSOCIATION FOR CHILDHOOD EDUCATION INTERNATIONAL
   3615 Wisconsin Avenue, N.W.
   Washington, D.C. 20016

5. COUNCIL FOR EXCEPTIONAL CHILDREN
   1920 Association Drive
   Reston, Virginia 22091

6. EARLY CHILDHOOD EDUCATION-ERIC Clearinghouse
   University of Illinois
   Urbana, Illinois

7. NATIONAL ASSOCIATION OF PRIVATE RESIDENTIAL FACILITIES FOR THE MENTALLY RETARDED
   1906 Association Drive
   Reston, Virginia 22091

8. NATIONAL ASSOCIATION FOR RETARDED CITIZENS
   2709 Avenue E East
   Arlington, Texas 76010

9. NATIONAL REHABILITATION ASSOCIATION
   1522 K Street, N.W.
   Washington, D.C. 20005

10. NATIONAL THERAPEUTIC RECREATION SOCIETY
    1601 North Kent Street
    Arlington, Virginia 22209

11. THE PRESIDENT'S COMMITTEE ON MENTAL RETARDATION
Washington, D.C. 20201

PART FOUR

AUDIOVISUAL AIDS

1. Aids for Teaching the Mentally Retarded (16mm, sound, color, 38 1/2 minutes). Thorne Films, Inc., 1229 University Avenue, Boulder, Colorado. (Available as one film or five separate ones.)

   This series was developed to help fill deficiences of resources available for in-service training in the field of mental retardation. The films were taken at Laradon Hall School for Exceptional Children, Denver, Colorado, to show a functional teaching approach that stresses gradual instruction, transition from one activity to another, and initial object-orientation from which abstraction may follow. Scenes show that trainable persons (IQ 25-50) can learn through a series of concrete, object-oriented retarded activities. Various mechanical devices used in this program to develop motor, sensory-perceptual and integrated motor-perceptual skills are unique in their application, but not in their availability. Many are being made by retarded persons in sheltered workshops. Construction often requires only basic knowledge of wood working, some inexpensive lumber, and paint.

2. Audio-Visual Media and Materials on Mental Retardation. National Association for Retarded Children, 2709 Avenue E East, Arlington, Texas 76011, $.50.

   Listing of available films and other audiovisual materials dealing with mental retardation includes a brief annotation of each; this guide was prepared and designed by practitioners in the field.

3. Cast No Shadow (16mm, sound, color, 27 minutes). Professional Arts, Inc., Box 8484, Universal City, California.

   This unique and dramatic film vividly depicts a wide range of recreation activities for severely and profoundly mentally retarded, physically handicapped, multihandicapped, and emotionally disturbed children, teens, and adults at the Recreation Center for the Handicapped (San Francisco, California). Emphasis is on values of recreation and its effects upon lives of handicapped persons as an integral part of their total learning experiences and social development. Equally, it is about handicapped individuals, ages 2 to 85, as people. Enthusiasm, satisfaction and enjoyment are shown on their faces as they participate in a variety of activities from snow skiing at Squaw

Valley's Olympic Village to wheelchair surfing in the Pacific Ocean.

4. Catalog of Audio-Visual Aids for Counselor Training in Mental Retardation and Emotional Disability. The Devereux Foundation, Devon, Pennsylvania 19333.

   This annotated listing of audiovisual materials includes those felt to be most appropriate for use in university counselor-training programs and in agency in-service training programs preparing staff to work with mentally and/or emotionally handicapped persons.

5. Chance to Live (16mm, sound, color, 18 minutes). South Carolina Association for Retarded Children, 1517 Hampton Street, P.O. Box 1564, Columbia, South Carolina.

   This film describes the problems facing parents of mentally retarded children and the need for community services, day care centers, developmental centers, sheltered workshops and group homes. The Orange Grove program in Chattanooga, Tennessee is depicted with the focus on programing in South Carolina.

   In day care settings, activities that stress socialization, skill development, and parent activities, are described. It is noted that persons are not institutionalized unless community services are not available. In the developmental center setting, the gap between day care and school or workshop is bridged. Much emphasis is given to skill development, habits and use of leisure hours in addition to deinstitutionalization. A sheltered workshop for the blind/mentally retarded is dealt with for meeting individual needs. In halfway houses (community homes), persons learn to live independently socially and economically. Supervision is given by house parents who provide a meaningful home to assist the people find a place in the world. Notation is made of services available in South Carolina and the need for emphasis on community services.

6. IMC/RMC Network Professional Film Collection (second edition). Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091

   The catalog lists and describes 293 films concerning handicapped children which are available from the Instructional Materials Centers and Regional Media Centers Network; art for exceptional children, autism, behavior management, gifted, disadvantaged, early childhood and preschool, emotionally disturbed, hearing/deaf and hard of hearing, learning disabilities, mentally handicapped, multiply handicapped physically handicapped, psychology, reading, sight/visually handicapped,

special education, speech/speech impaired, teacher training, tests, vocational education, and miscellaneous.

7. Mental Retardation Film List. Division of Mental Retardation, Social and Rehabilitation Service, National Medical Audiovisual Center, U.S. Department of Health, Education, and Welfare, Washington, D.C.

   Resource listing of selected audiovisual materials for use in mental retardation education programs. Films for use by the general public are grouped under heading of nonprofessional and include nature of mental retardation, its causes, general treatment, and prevention. Other films dealing with specific aspects of diagnosis, clinical treatment, rehabilitation, and control are listed in the professional section. Films are listed alphabetically in the descriptive sections and in the title index.

8. Mental Retardation Films. Parsons State Hospital and Training Center, 2601 Gabriel, Parsons, Kansas 67357.

   Listing of 16mm films on mental retardation is an outgrowth of the International Film Festival on Mental Retardation. Each film was checked to determine its direct relationship to the field of mental retardation and to eliminate films dealing with subjects peripheral to the field.

9. Movement Education (K-3). American Association for Health, Physical Education, and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036.

   A series of film loops dealing with basic movement, movement awareness, basic manipulative activities, and functional fitness. For a descriptive catalog and price list, write AAHPER.

10. Recreation Center for the Handicapped (16mm, sound, color, 23 minutes). East of the Mississippi River apply to Audio-Visual Studio, National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036; west of the Mississippi River apply to Mrs. Morris Pomeroy, Director, Recreation Center for the Handicapped, Great Highway near Sloat Boulevard, San Francisco, California.

    Founded in 1952, the Recreation Center for the Handicapped provides year round programs for severely handicapped participants of all ages. The program stresses achievement of happiness and contentment as each individual, regardless of his condition, learns to do for himself and to stand on his own two feet. The film shows participants active in checkers, music activities (tamborine and bongos), clay work, outdoor activities, table games, wrestling, swimming, fishing and casting, woodworking

playground activities, snow and winter activities, and dancing. Some of the many ways in which the participants help each other are vividly shown.

11. Somebody Waiting (16mm, sound, color, 25-minutes). Extension Media Center, University of California, Berkeley, California 94720.

This is a compelling story about children who live in Corcoran Cottage, Sonoma California State Hospital. They have severe cerebral dysfunction and are among the most physically, emotionally, and mentally handicapped children in society. They are totally dependent on the hospital staff for every physical, nutritional, and personal need. The film demonstrates that further handicapping can be avoided by appropriate environmental stimulation and therapeutic handling. It vividly shows the children's response to loving care, new physical therapies, and new experiences. The staff begins to learn, first from visiting professionals such as physical therapists and later from their own experience, how to make life more pleasant, interesting, and rewarding for the children--and themselves.

12. Where Do the Children Play? (16mm, sound, color, 15-minutes). National Association for Retarded Children, 2709 Avenue E East, Arlington, Texas 76011.

Today many severely or profoundly retarded children do not have to be institutionalized--they can live at home if there are sufficient and appropriate services in the community to meet individual and family needs. This documentary stresses need for community day training programs for such children. In the film the hopes of a young couple are shattered when their first child is diagnosed as profoundly retarded. The option of community-based services is contrasted with the traditional alternative of institutionalization. Scenes from various day training programs are shown and professionals, volunteers, and parents who work in these programs discuss the issue of providing developmental programs within the community. Many scenes show these children at play in the out-of-doors, on field trips, in parks, and in developmental activities such as body identification, self-care, and patterning. The film ends on the question as to where do the children play emphasizing the potential and individuality of each child to reduce or eliminate dehumanization of any group or individual.

PART FIVE

EXAMPLES OF ON-GOING PROGRAM APPROACHES

PORTERVILLE STATE HOSPITAL

Porterville State Hospital, California, conducted a project on "Total Care of the Multi-Handicapped Child" from June 1969 to May 1972. The Final Report of that project, funded by H.E.W., Division of Mental Retardation - Hospital Improvement Project is available from Ruth E. Smith, Ph.D., Porterville State Hospital, P.O. Box 2000, Porterville, California 93257. The project was a comprehensive treatment program for severely and profoundly retarded, multi-handicapped individuals with the following program objectives:

A. Motor

1. Prevent or reduce contractures, orthopedic deformities and skin breakdown.
2. Normalize muscle tone, muscle strength and motor coordination.
3. Increase voluntary movement of arms and legs with the particular goal of developing reaching, grasping, and ambulation.

B. Cognitive/Social

1. Increase response to and attention to environment.
2. Improve discrimination of different sensory stimuli.
3. Increase awareness of and responsiveness to other people.

C. Nutritional

1. Improve nutritional status and thereby general health.
2. Develop or normalize oral reflexes and oral sensitivity.
3. Develop or improve chewing techniques.

Also available are:

- audiovisual materials: 34-minute video tape (1/2" Sony format) 16mm kinescope, 35mm slides.
- F - 18 Ideas and Equipment guide.
- Objective Games materials.

The rationale and the objectives stressed by the above games materials are listed as follows:

Why Play Games?

We are all trying to help our residents to be self sufficient. We are trying to teach them adaptive skills, for example: toilet training, use of spoon, table manners, etc. When we try to accomplish an objective in these areas we find that we must first teach a number of sub-skills. A resident cannot be "toilet trained" if he can't button and unbutton; a resident can't use a spoon if he can't hold it; and a resident can't acquire table manners if he can't, or won't sit in a chair. We find that we must teach these "sub-skills" if we are to accomplish our objective. At this point we find the games helpful. There are games on the list, indexed by the service objective which may make the learning of these new skills fun.

One game may be used to develop many sub-skills and there are games which not only teach self skills but also help our residents use their bodies for these adaptive skills. When the games are played by the resident group, several benfit at the same time and there is added socialization.

If these games are played over and over again and varied with other games, we will find that our residents are becoming better able to button, to hold objects or sit in chairs. We then go on to the next step. The group leader of the resident groups is in the best position to know what should be focused on next. He knows what his resident can do with his body, his speech, his ability to understand, and his level of development. He also knows what the other residents in his group can do with their bodies and can devise games which will make the learning of the next step fun!

If you don't believe that your resident group can play a particular game because they can't tolerate competition, then modify the game. Change the rules to eliminate the competition and let them play for the sheer enjoyment of the activity.

1. Body Alignment and Joint Mobility Development Service Objectives

   a. To develop body alignment abilities
   b. To develop motor strength (as in spasticity and contractures)
   c. To develop body flexibility
   d. To enhance range of motion
   e. To develop gross coordination abilities

2. Sensory Responsitivity Improvement Service Objectives

   a. To improve visual perception skills
   b. To improve auditory (hearing) perception skills
   c. To improve sensory perception skills of other special senses
   d. To develop environmental awareness skills

3. Basic Body Movement Development Service Objectives

a. To develop lying positions movement skills
b. To develop four-point position movement skills
c. To develop sitting position movement skills
d. To develop kneeling position movement skills
e. To develop standing position movement skills
f. To develop self-transfer movement skills

4. Physical Functioning Development Service (With or Without Orthesis) Objectives

a. To improve body awareness skills
b. To improve gross motor coordination abilities
c. To improve fine motor coordination abilities
d. To improve sensori-motor performance abilities
e. To improve neuromuscular control
f. To improve locomotor and/or ambulation skills

5. Socio-Psychological Development Service Objectives

a. To improve psychomotor performance status
b. To improve cognitive performance status
c. To improve affective performance status
d. To improve emotional development status
e. To improve language development status
f. To improve social development status
g. To improve character development status

6. Personal Self-Care Development Service Objectives

a. To develop self-feeding skills
b. To develop self-toileting skills
c. To develop self-washing skills
d. To develop self-bathing skills
e. To develop self-dressing skills
f. To develop self-hygiene skills
g. To develop self-grooming skills
h. To develop independent trans-location skills
i. To develop mechanical aide and/or special devices and skills

7. Pre Formal Education Service Objectives

a. To increase attention span
b. To develop seeing and listening skills
c. To enhance language development
d. To enhance social interaction skills
e. To develop basic concepts of the physical world

f. To increase functional vocabulary skills
g. To enhance graphic expression skills
h. To improve social responsibility skills
i. To improve impulse control skills
j. To develop reading readiness skills
k. To develop special deaf-blind living skills

8. Formal Education Service Objectives

a. To develop speaking skills
b. To develop reading skills
c. To develop writing skills
d. To develop mathematics skills
e. To develop concepts of time, place, and order
f. To develop thinking and reasoning skills
g. To develop geography and social science skills
h. To develop scientific knowledge use skills
i. To develop physical fitness skills
j. To develop moral and spiritual values
k. To develop pre-vocational skills
l. To develop health and welfare skills
m. To develop special deaf-blind learning skills

9. Life Enrichment Training Service Objectives

a. To develop individual and dual game skills
b. To develop group games and recreational activity skills
c. To develop team sport skills
d. To develop dramatic arts and role-playing skills
e. To develop musical, vocal, and rhythmic skills
f. To develop arts and crafts performance skills
g. To develop outdoor life skills
h. To develop leisure-time utilization skills
i. To develop spectator sports utilization skills
j. To develop special deaf-blind coping skills

10. Vocational Training Service Objectives

a. To develop basic work training attitudes and habits
b. To develop task performance skills
c. To develop sheltered-employment work skills
d. To develop community-placement work skills
e. To develop trade and industrial career skills

11. Independent Functioning Development Service Objectives

a. To develop personal property care skills
b. To develop room care skills

c. To develop housekeeping skills
d. To develop home technical skills
e. To develop property maintenance
f. To develop pet care skills
g. To develop social role skills
h. To develop citizenship role skills
i. To develop economic role skills
j. To develop worker role skills
k. To develop public services utilization skills
l. To develop life enrichment opportunities utilization skills
m. To develop personal and social safety skills
n. To develop general safety skills
o. To develop general survival skills

PENNHURST STATE SCHOOL AND HOSPITAL

The present Pennhurst model (which is also described in the attached article at the first of this information sheet) employs data-based programing for moving each individual sequentially through his own "developmental hierarchy from one stage of treatment and development to other more complex stages."

"The three-stage workshop with an average weekly payroll of over one thousand dollars combined with a realistic scrip economy obliterates peonage and enhances the dignity of work. Functional on-ward behavioral in-service training liberates child care workers from custodial chains and cloaks them with programming skills. Multi-disciplinary efforts focus on an individual program for every citizen--a program with definitive short and long term goals and procedures and strategies to achieve them. Simulated on-grounds coummunity orientation programs ease the transition into the main stream community. Advocacy programs; sexuality education; mobility instruction; unique stimulus enriched environments; a communication center for the deaf; extensive volunteer resource efforts; over three hundred recent successful community placements; foster grandparents; data-based school programs; modular homes; and the list goes on."

Materials and printed papers are available from Dr. Robert Smilovitz, Pennhurst State School, Spring City, Pennsylvania 19475.

RECREATION CENTER FOR THE HANDICAPPED, INC.

The Recreation Center for the Handicapped, Inc., San Francisco, California, is a non-profit corporation dedicated to bringing happiness and companionship to severely mentally retarded and physically handi-

capped children, teens, and adults. This community program provides day care recreation, camping, an early infant stimulation program, homebound recreation, teen program, adult education program, and a variety of other services.

RANIER SCHOOL

In addition to a strong recreation program at Ranier School, Buckley, Washington, a program aide project called "Mission Hope" strives toward the goal of improving physical, emotional and social functions of the severely and profoundly mentally retarded residents at the state school. A program aide is described as a motivational catalyst who stimulates the resident towards reaching his fullest potential either by an open-structured approach or a structured program. In open structure, the aide provides opportunities for the resident to explore and respond to many different stimuli and situations in his own individual way. In the structured program, specific recreation programs for particular individual needs of the resident are offered.

EASTERN STATE HOSPITAL

An activity guide for use in personal and family care homes entitled "How to Provide a Little More than 'Room and *Bored*'" was developed by the Community Placement Program, Eastern State Hospital, Lexington, Kentucky. The guide is aimed toward assisting operators and staff of the homes in providing simple, constructive and healthy activities for the patients who have been placed in the community from the hospital. In addition to offering direct consultation and assistance, the hospital staff lists available sources in the local community, suggested equipment and facilities, information on use of volunteers, suggested activities, and references for additional information to be found in the local library.

STATE COLONY AT WOODBINE

A program for training recreation aides and attendents in creative and constructive recreational activities for profoundly and severely retarded children was developed by the State Colony at Woodbine, New Jersey. The program stresses recreational motivation which is a system of directed techniques used by the recreation worker to afford the resident the opportunity to increase his limited capabilities.

The worker meets each resident for thirty minutes to one hour at least once a week, depending upon the activities planned. A group of five to ten

residents are provided structured experience situations in the "five-area basis" for the techniques: 1) create a climate of acceptance, 2) make connections to the real world, 3) share the outside world, 4) teach the simple tasks of the cottage units, and 5) create a climate of appreciation.

BRANDON TRAINING SCHOOL

An institutional day camp for educable, trainable, severely and profoundly mentally retarded residents was conducted by the Brandon Training School, Brandon, Vermont during summer, 1972. The camp was financially supported by a Title I grant and the Parents Association of the school. Camping experiences included arts and crafts, sports, horseback riding, animal care, nature lore, hiking, music, free choice activities, evening programs, field trips, excursions, cook-outs, overnights, and special camp programs. The sixty-seven severely and profoundly mentally retarded residents showed 1) the greatest arts and crafts skill development indicating "that impact was greatest upon them as their need for development is greatest," 2) the largest increase in physical education and developmental skill development indicating "that increased activity was very beneficial to their physical health, and 3) high percentage of improvement in horseback riding (along with similar improvement in trainable level residents) indicating "impact on TMR and SPMR is greater because these residents have usually less activity involvement."

COLDWATER STATE HOME AND TRAINING SCHOOL

In addition to a well developed play therapy and perceptual-motor program, the Coldwater State Home and Training School, Coldwater, Michigan, used thirteen and fourteen year old volunteers in a special summer project. Between five to eight junior high students, including a special education student, from Quincy, Michigan worked under the direct supervision of a physical education teacher at the school during a three day a week, one and one half hour daily, special play therapy program. Seventeen profoundly retarded residents (ten wheelchair-bound and seven ambulatory) were provided play on an elevated sandbox, water play on an elevated wading pool, and toy play. The supervisor considered the young volunteers to be the best of workers she had ever worked with in eleven years of teaching.

CHILD DEVELOPMENT DAY ACTIVITY CENTER

In 1966, the Child Development Day Activity Center was established at St. Louis University in Cardinal Glennon Memorial Hospital for Children. In response to a growing awareness of the stimulating and nurturing effect of the home instead of the institution, day activity programs were provided to: 1) offer day training for severely and profoundly retarded children for whom there were no existing day educational facilities; 2) demonstrate not only the necessity but also the feasibility of this program; and 3) provide a situation for research and training with these children. Information on administration indicates that day training is not appropriate for all profoundly retarded, especially those who 1) have gross physical impairment, 2) are non-ambulatory, 3) are tube-fed, 4) are non-responsive to environment, 5) are extremely hyperactive, destructive, and disruptive, 6) are intolerant in group situations, and 7) have family problems. The Center Staff stresses that their program is not group "baby-sitting."

FAIRVIEW HOSPITAL AND TRAINING CENTER

A new Title I project is provided at Fairview Hospital and Training Center, Salem, Oregon for some of the severe and profoundly retarded residents. The Activity Center Program consists of 2 to 3-hour blocks of time in which 75 residents in each group walk from their cottage to the Activity Center, take part in activities and return. The program includes gross and fine motor coordination, musical activities, arts and crafts, physical activity, movement exploration, and a creative playroom. Six recreation staff members and four cottage attendants are involved in the supervision of the project.